Trains

35¢

May, 1947

About the railroads . . . fully illustrated

Mirage on Main Street

● A recent survey of public opinion indicated that lots of folks have been "seeing" a mirage of railroad profits that weren't there.

Most people thought that 10% would be a fair profit for railroads—nine out of ten said 6% *or more* would be fair. But the fact is that the railroads don't come out anywhere near that well.

In the years since 1938—four of them war years of tremendous traffic—the railroads earned an average of only 4% per year on their net investment in tracks, cars, engines, shops, stations and all the things it takes to produce the rail service which the nation needs.

In 1946—with wages and prices of material and fuel up more than 50% above prewar levels—railroads still hauled freight at prewar rates. Even with a slight rate increase during the last half of the year, earnings on net investment dropped to an average of only 2¾%. Some railroads earned more, but others showed no profit at all—were, indeed, in the red for the year of the heaviest peacetime traffic in history.

At the end of 1946, the Interstate Commerce Commission authorized higher freight rates to become effective in 1947. These increases will help railroads meet their rising costs, and will give them a better chance to improve equipment, roadways, and other facilities—improvements necessary for continually better service.

But even with these increases, in 1947 railroads as a whole will probably average little more than 3% on their investments—just about half the 6% which is as little as anyone would consider a fair profit.

ASSOCIATION OF **AMERICAN RAILROADS** WASHINGTON 6, D. C.

IN PARTNERSHIP WITH ALL AMERICA

Trains

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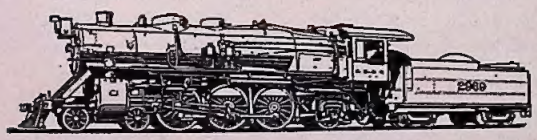

Volume 7, Number 7

May 1947

"To those of us who have spent our lives in railroad service, it is a source of gratification that, with negligible exceptions, railroads have never received government bounty. Even the early land grants in aid of railroad construction in the West were not gifts, but in the nature of loans, which have been repaid more than sevenfold in reduced rates on government traffic."— Robert V. Fletcher, President, A. A. R., in Atlantic Monthly.

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Eastern Passenger Fare Increase

When the Interstate Commerce Commission approved the New Haven's application to increase passenger fares from 2.2 to 2.5 cents a mile in coaches and from 3.3 to 3.5 cents a mile first class, the decision was regarded as a forecast of the I. C. C.'s attitude on the application of eastern trunk lines for similar increases. Following the recent increase of air-line fares from 4.5 to 5 cents a mile, the first-class rail rate would still be less than air travel — berth, meals, and tips included.

But to the man in the end seat of the smoking car the first and logical question was, "Are the railroads pricing themselves out of the passenger business?" For everyone who knows much about the railroad business knows that passenger train costs are largely on a train-mile basis rather than on a per-seat basis, and hence a railroad makes more money hauling a full train at low rates than it makes hauling a half empty train at high rates. Would higher rates cut the volume of railroad passenger travel, already declining with the disappearance of military travel?

The passenger executives had thought this through themselves before entering the plea for increases, and the size of the increases was tempered by their knowledge of the need for full loads. But, as one passenger traffic manager said, "Even at 2½ cents a mile we'll be giving them a much better money's worth than a rate of 1½ cents a mile at preinflation money levels. And the average traveler now will stand a better chance of riding on new equipment, with added luxuries and comforts previously confined to only a few feature trains."

Some of these luxuries were themselves a cause for higher fares. Twenty years ago a standard steel coach cost $20,000. Now with air conditioning, reclining seats, better lighting, lounge rooms, improved springing, etc., plus inflation, a coach costs some $90,000; a diner or special feature car may run well over $100,000. But mostly the cause of higher passenger fares was simply the fact that freight rate increases granted the railroads as of January 1 have been insufficient to stem the tide of higher operating costs, which last year cut eastern railroad return on net property value to 0.83 per cent. The New Haven was first to apply for passenger fare relief because it gets 47 per cent of its revenue from passengers, against 16.5 per cent national average.

Testimony before the I. C. C. indicated that much thought had been given to how a 2.5 cent coach fare and 3.5 cent first-class fare would affect traffic volume. Buses were mentioned as hard pressed and likely to soon increase their fares. Increases in cost of automobiles and gasoline were also cited. Actually, a repeal of the wartime excise tax of 15 per cent on railroad tickets would more than nullify the increases.

Most emphasis, however, was put upon the general need for additional railroad revenue. Without more income most roads would have to make drastic cuts in expenses, in most cases by discontinuing the less popular trains.

The actual operating ratio of passenger trains was seldom mentioned, for after wartime experiences with profitable high volume passenger business most railroad men are more realistic in their attitude toward passenger train accounting. It is more generally realized that the I. C. C. is too strict in requiring that fixed joint expenses of a railroad used by both passenger and freight trains be shared between the two on the basis of coal used. Railroad men have come to look beyond the I. C. C. figures, knowing that many of these fixed expenses, now partly charged against their passenger trains, would go right on even if no passenger trains ever ran again.

New York Pipe Dream?

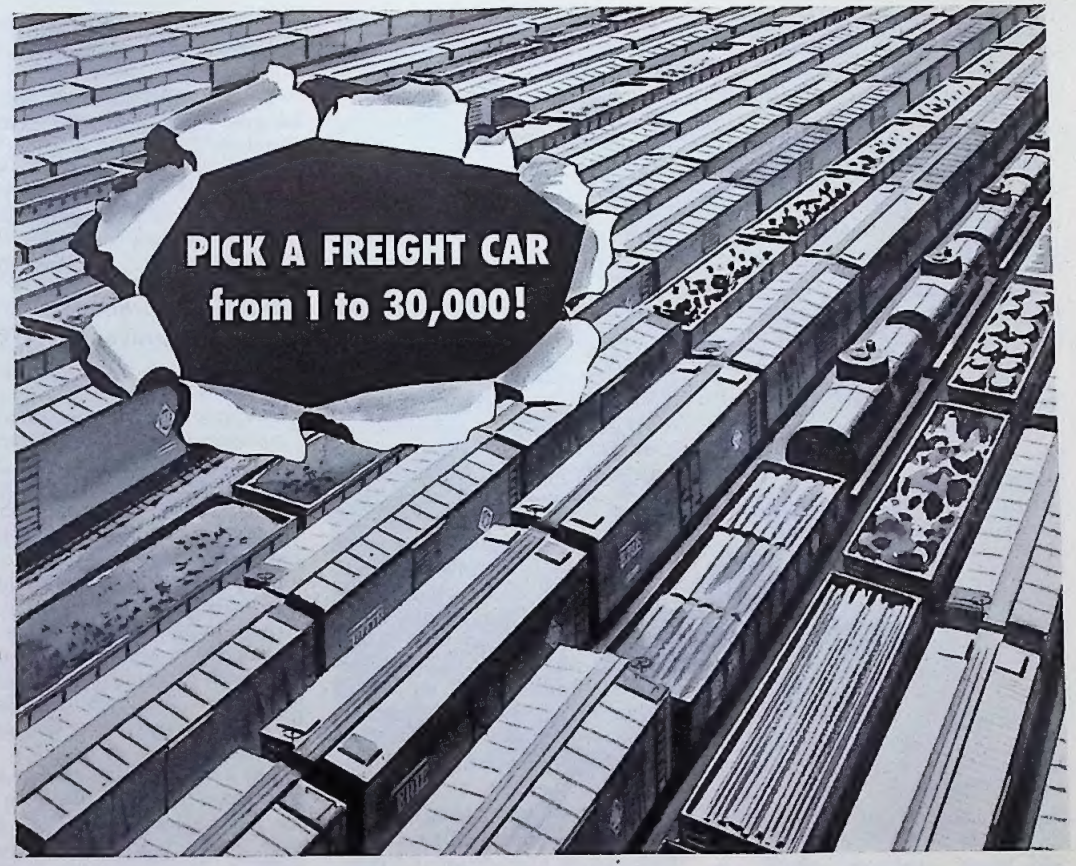
The plan was immense. As *Tide* remarked, "The project amounts to one of the most ambitious ventures private capital ever has tackled." But if it ever reached reality it would alter New York's railroad map and commuting habits as they have never been changed since Pennsylvania opened its Manhattan station in 1910. What the New York *Herald-Tribune* uncovered was a plan to buy the Long Island Railroad from the Pennsylvania, extend its facilities through four underground stations on Manhattan, one of them at Grand Central, and into New Jersey and connection with the Erie's suburban network. Self-contained villages would be built in Long Island and parts of New Jersey to relieve population pressure, and trains would run right through from New Jersey or Westchester to Long Island at 10- or 15-cent fare. Studying the plan

Class 1 Railroads: Revenues, Expenses, and Income

From the Interstate Commerce Division, Bureau of Transport Economics and Statistics, comes this interesting summary of railroad expense and income items, compared for prewar 1941, for 1945 and 1946.

Account	Calendar year			Percent of change	
	1946	1945	1941	1946 over 1945	1946 over 1941
	Figures in millions				
Operating revenues	$7627	$8899	$5346	—14.3	+42.7
Operating expenses	6357	7053	3664	— 9.9	+73.5
Net revenue	1270	1846	1682	—31.2	—24.5
Railway tax accruals	499	822	547	—39.3	— 8.8
Federal income and excess profits	cr. 15	305	174		
All other	514	517	373	—0.6	+37.8
Equipment and joint facility rents — dr.	152	174	137	—12.6	+10.9
Net railway operating income	619	849	998	—27.1	—38.0
Net income	280*	447	500	—37.4	—44.0
Net income restated†	110*	607	500	—81.9	—78.0

†Restated to eliminate 1946 Federal income tax credits and the effect of the unusual accounting for accelerated amortization of defense projects in 1945.
*Partly estimated.

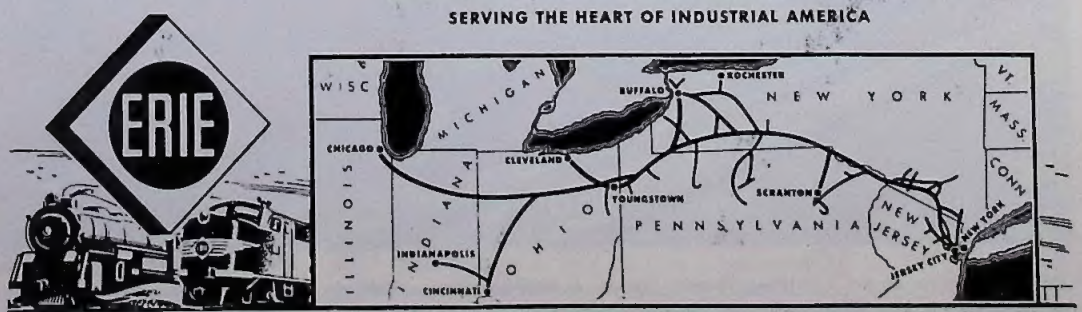


Look at the map below of the Erie System—over 2000 miles of railroad. Picture as many as 30,000 freight cars moving back and forth over these tracks at any one time. Every day, about 4000 cars are delivered to consignees and to connecting railroads; every day about 4000 *more* cars are received by the Erie from connecting railroads and on-line shippers.

Yet with all those constantly moving cars, the Erie can tell a shipper promptly *where* his car is, and *when* it is due to arrive at destination! This service is made possible by a unique and modern teletype system . . . typical of *progressive, precision* railroading . . . the kind of railroading which in this and many, many other ways means *better service* for Erie shippers.

Erie Railroad

SERVING THE HEART OF INDUSTRIAL AMERICA



is William R. Daley, president of Otis & Company, Cleveland, and his associate, Cyrus Eaton. Both have been closely connected with Robert R. Young, whose slice of New York Central may have some significance in the deal.

Railfan Trips

[Notices must be received by the 10th of the preceding month.]

May 11: Baltimore & Ohio Chicago Terminal lines, from Grand Central Station at 9 a. m. standard time. Fare $3.75. Write R&LHS Chicago Chapter, D. W. Yungmeyer, 5116 Dorchester Avenue, Chicago 15, Ill.

May 11: Jamestown, Westfield & Northwestern electric leaving Westfield 1 p. m. Buses will be substituted July 1. Fare $2 in advance to John B. Holt, 12407 Fairhill Road, Cleveland 20, O.

May 11: Baltimore & Ohio to Baltimore, Baileys Roundhouse, and Mt. Clare Shops. From New York or Philadelphia. Write Railroad Enthusiasts, New York Division, Ed Hansen, Box 63, Packanack Lake, N. J.

May 18: Tri-Boro trolley tour, leaving Park Row and Brooklyn Bridge, New York, 10:30 a. m. Fare $1.25 in advance or $1.50 on car. Write E. A. White, 310 W. 34th Street, New York 1, N. Y.

May 18: Danville, Ill., via C&EI. See Illinois Terminal electric and C&EI engine lineup at Danville. Leave Dearborn Street station, Chicago, 8 a. m. standard time on *Dixie Flagler*. Fare $6 before May 12, including bus at Danville. Railroad Club of Chicago, R. F. Treptow, 9411 S. Throop Street, Chicago 20.

May 18: By request, a repeat of last year's trip over narrow-gauge East Broad Top, Mt. Union, Pa. Good connections with Pennsylvania RR. mainline trains. Fare $2. Write (enclosing return postage) Howard E. Johnston, 78 Sandford Avenue, Plainfield, N. J.

May 30: Week-end all-expense trip from Cleveland to Roanoke, N&W. Write Franklyn P. Kellogg, Cleveland Railfans' Association, 1981 E. 105th Street, Cleveland.

May 30: Mystery trip out of Los Angeles. Leave 7:45 a. m. not from Union Station. Fare $3.35. Boosters, A. Wayne Melching, 804½ W. 85th Street, Los Angeles 44, Calif.

May 30: Over oldest railroad in Michigan, from Adrian to Monroe. Write Gustave W. Erhardt, Toledo Railfans' Association, 1343 Dawson Street, Toledo 5, O.

May 30: Akron, Canton & Youngstown mixed trains, leaving Akron 10:30 a. m. Write Robert W. Richardson, Akron Railroad Club, 34 S. Union Street, Akron 8.

May 30 to June 1: Trolley fans' week end on West Penn and Pittsburgh Railways. Starts Greensburg, 7 a. m. May 30 (PRR connections). Fare for three days $8.50 if paid by May 24. Joint Railfan Trip Committee, Inc., Lackawanna Terminal, Hoboken, N. J.

July 14-18: Colorado narrow gauges, including Rio Grande Cumbres Pass and Silverton lines and Rio Grande Southern. 863.2 miles. Total rail fare $35. Reservations limited to 66 persons. Details from Nolan W. Black, 6015 Burwood Avenue, Los Angeles 42.

C&O-Pere Marquette Merger Approved by I. C. C.

Merger of the Pere Marquette into the Chesapeake & Ohio has been approved by the Interstate Commerce Commission. The resulting system will total 5033 miles and will stretch from tidewater at Hampton Roads, Va., through the Pocahontas coal fields to the Great Lakes at Toledo and Chicago and up into the tip of lower Michigan. Car ferry connections carry the system across Lake Michigan into Wisconsin at Milwaukee, Manitowoc, and Kewaunee, and another ferry takes it across the Detroit River and across lower Ontario to Buffalo.

The two roads have been affiliated since the '20's and have had the same officers since 1929. Both have profited from the friendly traffic and management co-operation which resulted, but the actual merger will increase the savings and give Pere Marquette territory

Charles A. Brown, Box 128, Rutledge, Pa.

This is a preview of the new Pennsylvania Diesels, a 6000-horsepower Baldwin passenger engine soon to be placed in the Harrisburg-St. Louis-Chicago-Detroit pool. After tests it will be repainted with gold stripes and keystone like the GG-1's.

greater assurance of continued service. Primary interchange between the two roads has been at Toledo, but now traffic will move through this point in single-line hauls and at single-line rates.

Except for obtuse legal purposes the Pere Marquette will lose its corporate identity and the entire system will be known as Chesapeake & Ohio. The merger is of the extensive type that the I. C. C. has tended to favor. That is, it increases the geographical extent of the system, contrary to the intensive type of consolidation which merges competing lines.

The original plan of C&O was to merge the Nickel Plate and Wheeling & Lake Erie into the system along with Pere Marquette, but NKP preferred stockholders objected and the plan was dropped. C&O accordingly has been negotiating to dispose of its Wheeling interests and expects also to dispose of its Nickel Plate interests as its widely publicized New York Central plans progress. The C&O annual report compares the wider territory of New York Central with that of Nickel Plate and says, "An affiliation of these two lines [NYC and C&O] should add to diversification of C&O traffic and provide it with greater outlets for its coal traffic. The NYC would be greatly strengthened by an affiliation with a railroad on whose lines so large an amount of bituminous coal is produced."

The trend of these plans may be seen by the fact that C&O, in addition to asking I. C. C. permission for Board Chairman Robert Young and President Robert Bowman to serve on NYC's board of directors, has also asked permission to vote its six per cent of NYC stock, the largest individual holdings, and instead to impound its Nickel Plate stock in an independent voting trust. On the subject of NYC merger, the C&O annual report says, "Your management does not presently propose a consolidation of the C&O and the NYC. The physical properties of the NYC have been maintained in satisfactory condition, and it has no heavy maturities to be met for some years to come. But no plans for a merger or consolidation with the C&O should be advanced until the earning power and the credit standing of the New York Central shall have been improved."

Illinois Central's new Iowa streamliner, "Land o' Corn," leaving Rockford, Ill.

Box Car Production Up at Pullman-Standard Plant

First signs of impending improvement in the national freight car shortage came last month in an announcement that deliveries from the Michigan City, Ind., plant of Pullman-Standard Car Manufacturing Company have been stepped up to a rate more than double the 1946 average. The Michigan City plant, which ranks as one of the largest in the nation, is now building 39 cars daily, with prospect that production will reach a rate of one new completed freight car every 10 minutes of the working day when promised larger steel supplies become available this summer.

The present daily output of 39 cars, including 12 refrigerator cars and 27 box cars, on two assembly lines contrasts with the 18 per day average which prevailed at the plant following V-J Day due to inability to obtain an adequate supply of steel. Until recently, the plant had been on a single-track schedule since the spring of 1945, and that at a reduced rate — only one third of capacity.

"The railroads now own 500,000 less freight cars than they did in the period right after World War I, but are handling nearly 50 per cent more ton-miles of traffic and still not meeting all demands," according to Wallace Barker, vice-president of Pullman-Standard. "Adding to the shortage is the fact that 5000 worn-out freight cars are being retired by the railroads each month. To offset this, car builders in 1946 were able to produce only 3300 cars per month because of material shortages. Not only are car builders faced with the task of replacing the 5000 cars being retired each month, but with the job of building a plus number of cars to alleviate the shortage. It was recently estimated that the railroad freight car fleet should be increased by 30,000 cars. Orders have already been placed, or are said to be definitely contemplated

this year, for a total of 131,600 new cars."

Mr. Barker said that the Michigan City plant is particularly adapted to long runs of standard box cars, and that starting this summer would begin work on a run of more than 6000 cars all having essentially the same specifications.

Roller-Bearing Stock Cars

Union Pacific will chop 40 per cent off livestock schedules between Salt Lake City and Los Angeles by use of Diesel power and 300 special manifest stock cars now being equipped with Timken roller bearings and steel wheels. The high-speed cars will be thoroughly reconditioned and painted the streamliner colors of canary yellow with bright red lettering.

The principal saving in running time will be elimination of a stopover at Las Vegas for water and feed. Higher consistent running speeds will also be possible, and a maintained schedule of 32 hours is expected against present running time of 58 to 60 hours.

Equipment Notes

Chesapeake & Ohio has asked bids on 3000 70-ton hopper cars, and as with 1000 box cars earlier this year, invited the builders to bid on their own specifications as a step toward greater standardization of freight cars. Unlike the 1000 hoppers ordered earlier with roller bearings, this lot will be used mostly for interchange service and so will be built with friction bearings. C&O says until other railroads buy roller-bearing freight cars and provide proper maintenance for them, its equipment of this type will be confined largely to on-line operations. . . . Southern Pacific has ordered 6200 more freight cars of various types, raising its expenditures for new rolling stock received or ordered since V-J Day to a total of more than $85½ million.

Boston & Maine will retire 100 of its oldest coaches from service this year. All passengers in through train service are now carried in all-steel cars. . . . The Southern has ordered 3000 box cars and 1000 hopper cars, in addition to 2350 freight cars already on order and 101 streamlined lightweight passenger cars to re-equip four principal passenger trains. . . . $70,000 worth of paint will be used by railroads just for repainting car names and numbers in a $100 million railroad repainting program which will be needed to cover current requirements and deferred maintenance from war years.

Canadian National has ordered 3700 box cars, 150 covered hopper cars, and 500 automobile cars. . . . The New Haven has designed a fingertip control, pneumatically operated door which will be used in the 180 new passenger cars being built for mainline service between New York and Boston and Springfield. . . . American Car & Foundry will build 500 50-ton twin hopper cars for Illinois Central.

Some of the surplus U. S. Army hospital cars have been sold to Ringling Brothers' circus and are now in the Big Top's circus trains as dormitory cars. With their all-steel construction, streamlined exterior, and large windows they surely change the appearance of the trains. . . . The Monon Railroad has nearly finished shopwork on the first of the surplus hospital cars which it is rebuilding into modern streamlined equipment in order to beat delivery dates on brand-new equipment. The first complete Monon streamliner is expected in July. . . . The Pennsylvania Railroad has the *Jeffersonian* and the *Trail Blazer* completely equipped with the new postwar coaches described in our February issue. The new lounge, diner, observation, and special feature cars to go with the coaches are now being built in the road's Altoona Works. The same type new coaches are also being used in the *Liberty Limited*.

Another Comparative Test of Diesel vs. Steam

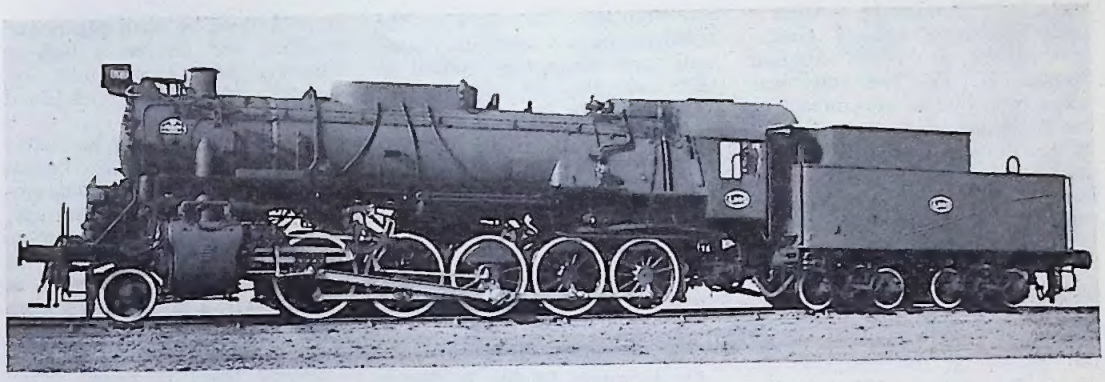
The question of motive power is not a question of what can be accomplished by a steam or a Diesel locomotive, for as we have often pointed out, a steam locomotive can be designed to do almost anything a Diesel can do, or vice versa. The question railroad management asks is, "Which type of motive power will do it most economically?" The answer varies from road to road, according to operating conditions, relative costs of Diesel oil and coal, and maintenance facilities.

Norfolk & Western, with ample low-cost coal fuel, is doing a marvelous job with conventional reciprocating steam locomotives, as reported in last issue (page 14). Steam locomotive men have often complained that Diesels get new maintenance facilities, the best runs, and extra-special attention all along the way. N&W has given the same special facilities, extra-special attention and quick turnarounds to steam and seems to prove the point that each type of motive power definitely has its place in the operation of modern railroads.

Most people think of high-speed passenger trains when the talk turns to Diesel versus steam. The annual speed survey in the April issue of *Railroad Magazine* shows an increasing trend to Diesel power on the fastest trains in America. Steam now has only two runs at over 75 miles an hour, Diesel has 32. Of all runs over 60 miles per hour, steam handles 740 for 51,277 miles, straight electric 664 for 26,190 miles, and Diesel-electric 1164 for 69,412 miles.

Actual costs on identical runs have seldom been compared, although all railroads operating Diesels no doubt have a good idea of average costs for both types of power. One fine comparison, results of which never were made public, was on the Milwaukee Road, where high-speed, well-balanced 4-6-4 steam locomotives which had held the world's speed record on the *Morning Hiawatha*, ran as opposite numbers to Diesels on *Hiawatha* runs for several years. The steam locomotives were replaced with Diesels recently, which no doubt is the answer, but minus the intriguing details.

New York Central has been making a similar comparison, but with locomotives in pool service between Harmon (end of the New York City terminal electrification) and Chicago. Six Niagara type steam locomotives and six Diesels have been rolling off nearly 30,000 miles a month apiece over NYC's proud main line, turning as quickly as possible at each end and taking another train right back. This represents very intensive steam locomotive utilization, nearly as many miles per month as Diesels roll up on crack western transcontinental runs. Total per mile operating cost is slightly lower for the steam locomotives; on-time record is slightly better for the Diesels. The Diesels take less terminal servicing



Eight lightweight 2-10-0 type steam locomotives have been built by Baldwin to operate in Greece over the temporary bridges which have replaced permanent structures blown up during the war. Weight per driving axle is only 16.3 tons.

time, and so a turnaround schedule can be more readily set up. In many another railroad operating situation the decision is just this close. The Diesel is not a passing whimsy, nor is the steam locomotive passé.

Locomotive Notes

The Clinchfield has purchased from W. A. A. the six 4-6-6-4 simple articulated locomotives built for the government in 1943 to Union Pacific specifications and leased to Rio Grande by Defense Plant Corporation. With wartime traffic peaks a thing of the past, the Rio Grande did not care to add the engines to its permanent roster and they were put up for sale. The Rio Grande engines are remarkably like Clinchfield's own 4-6-6-4's built in 1943, slightly heavier overall, somewhat more horsepower, but slightly lower starting tractive effort. . . . The Monon has ordered five additional 3000-horsepower road Diesels, one 1500-horsepower B-unit road locomotive, and 16 1500-horsepower road switchers, adequate under present traffic conditions to complete Dieselization of the road. . . . Gulf, Mobile & Ohio expects to save $1 million a year by moving all its freight with 80 Alco 1500-horsepower Diesels, 60 of which are now in service.

Boston & Maine's annual report states that in the last months of 1946 60 per cent of freight train miles and 80 per cent of gross ton miles were operated by Diesel power, while 30 per cent of passenger train miles and 39 per cent of passenger car miles were Dieselized. Even this partial Dieselization for part of the year saved $1,750,000 in fuel. . . . Pennsylvania Railroad has in use more locomotives equipped with steam jet smoke consumers than any other railroad in the United States. Nine road engines and 320 switchers on PRR are fitted with the jets, which increase firebox turbulence and thus burn the volatile matter distilled from the coal before smoke can be formed. In the entire country 536 road engines and 1304 switchers are jet equipped, according to Bituminous Coal Research.

Southern Pacific expects deliveries this month on 20 freight and five passenger mainline Diesels. . . . Pere Marquette has ordered four 2000-horsepower passenger Diesels from Electro-Motive. . . . In announcing an order for 13 additional Diesel switchers, W. M. Neal, president of Canadian Pacific, said his road would soon test a road Diesel on both freight and passenger runs. "The record of Diesels in our yards and on American roads makes us doubt the economy of ordering more large steam locomotives," he said. . . . The Southern has ordered three 6000-horsepower freight Diesels and four 1500-horsepower road switchers from Electro-Motive. These are in addition to 68 road freight units and 25 switchers already on order. . . . Canadian National has ordered 28 1000 horsepower switchers, 18 from Electro-Motive and 10 from Alco. Eight will be assigned to the Grand Trunk Western.

Odds and Ends

The Smoky Mountain Railroad, 30-mile short line out of Knoxville, Tenn., finds itself in a fine pickle. Its line is washed out and the road has no cash, bank credit, or other borrowing power to secure the $6000 necessary to rebuild, so it has applied to the I. C. C. for abandonment. But meanwhile the Tennessee Railroad Commission has asked the I. C. C. to issue a summary order requiring immediate action toward repairing the roadbed. . . . A railroad ticket purchased in 1898 and bearing no time limit was honored by the train conductor. Cost of a ticket for this trip turns out to be the same today as it was 48 years ago.

All Texas & Pacific passengers on trains carrying dining cars are now invited to be guests of the house for coffee at 10 a. m. and 3 p. m. . . . Baltimore & Ohio has reinaugurated service of table d'hote meals at coach seats on the *National Limited* and the *Diplomat*. This service was popular before the war but was discontinued during the wartime rush. It will be extended to other B&O feature trains. . . . The 368-mile Missouri & Arkansas Railroad is still strikebound and abandonment looks reasonably certain. However the New York banking firm of H. E. Salzberg & Company is reported interested in the property, ostensibly for salvage, and it is possible they might do with the road what they did with the Unadilla Valley which they bought for salvage and instead have operated successfully.

Chicago & North Western has an excellent new sound motion picture telling how freight is handled behind the scenes in the road's principal yards and terminals. . . . Texas & Pacific now has teletype service connecting its general offices in Dallas with freight and passenger offices in 10 major

cities. . . . Chesapeake & Ohio is again operating historic Greenbrier Hotel at White Sulphur Springs, W. Va. The hotel was taken over by the government at the beginning of the war, housed foreign diplomats awaiting repatriation for some six months and then became a general hospital. It was turned back to C&O recently by W. A. A.

New York Central printed a new suburban timetable for its Hudson Division and then had to advise commuters not to wait for train 136, shown on the timetable as leaving Peekskill at 6:20 a. m. for Grand Central. There isn't any such train any more. . . . A central Railroad of New Jersey train was delayed at Easton recently when station employees put water into the wrong tank of the Diesel locomotive. They found it takes fuel oil to make the engine turn, and the train left behind a coal-burning steamer.

Rumors continue of a railroad to Alaska. The Seattle *Post-Intelligencer* reports a formal written offer by an American company to buy the Pacific Great Eastern Railway from the province of British Columbia and extend it through the Peace River country to Fairbanks, Alaska. . . . The Milwaukee Road is negotiating to buy the Pacific Coast Railroad over whose tracks it enters Seattle from Maple Valley, 23 miles. . . . Jersey Central has sold 19 steel coaches to China.

A new high record for railroad passengers into and out of New York's Grand Central Terminal was set in 1946, when the year's total was 65,156,063 and the daily total exceeded 200,000 on 113 days. A new high day was set November 27 with 245,816. Suburban passengers on both NYC and New Haven have been increasing while through train passengers have dropped off since end of war. Suburban passengers are now 60.2 per cent of the total. . . . The pigeons will no longer return to C&NW's Chicago terminal, hopes E. C. Vandenburgh, chief engineer. Ledges, window sills, and other likely spots have been fortified with U-shaped wire prongs, placed every two inches on wire frames, and it will now take a Yogi pigeon to light on the building.

Looks as though the cable cars may be on their way out in San Francisco. The lines up the hills have been a municipal trademark ever since they started in 1873 and today are a finer tourist attraction than ever. But Mayor Roger Lapham says, "Sentimentalists do not have to pay the bills." Twin-engined buses will replace the Powell Street cable line, but a country-wide clamor to keep at least one line may cause a subsidy for the independent California Street line as a tourist attraction.

In the Railroad Headlight

On February 14, W. R. (Rufe) Pickett, TRAINS railroad man of the month, completed 27 years on the Chicago Division of the Rock Island Lines. During that time he has been employed as either a freight or passenger brakeman, or a ticket collector on suburban trains. If you come into town on the Rock Island suburban lines from Blue Island and other points southwest of Chicago, you've probably heard Rufe call out in a drawling southern accent: "La Salle Street Station. Far as we go. Don't forget your lunches." Always a gentleman and always smiling, fellow employees say that they have never seen Rufe angry in all his 27 years of service.

Aside from the fact that he is like many another railroad man in serving the public day after day with good will and a smile, Rufe is extraordinary in another respect. What makes him unusual is his editorial hobby. His copy is used not only in the Rock Island's *News Digest*, but also, for the past 20 years, he has contributed "Rufe Pickett's Weekly Letter," to the Moore County *News*, located near Rufe's birthplace in North Carolina. From time to time during the years he has been on the Rock Island, Rufe has contributed to many newspapers, and he has had by-lines in the Elkhart (Ind.) *Truth*, and the Blue Island (Ill.) *Sun-Standard*. He never gets paid for any of his stories, most of which are written in a sort of Will Rogers philosophy style. Rufe fears that if he received money for his writing, he might loose interest, and quit the literary field entirely. His whimsical, homespun columns are welcomed by small papers and weeklies, and he has a host of followers who never miss his monthly column in the Rock Island Lines' magazine.

An active booster for his native state, he is known by his friends as North Carolina's good-will ambassador No. 1. A few years ago, Rufe returned to his home town for a vacation. You can imagine his surprise when he was greeted at the station by a brass band, a huge crowd of people, and the governor of the state.

Several times in recent years, Mr. Pickett has been the subject of feature stories in the Chicago papers. In these stories his courtesy and good humor are always stressed.

Any blue, he holds, ought to be his favorite color. He has blue eyes, wears a blue uniform and lives, with his wife and 14-year-old daughter, in Blue Island, Ill.

Electrification in the Far West

Look for increasing consideration of mainline electrification in the Far West. Whether steam or Diesel, road locomotives in this territory are almost all oil burners, and thus use a national resource which is not only irreplaceable, but also certain to increase in price. Huge hydroelectric developments make electricity constantly available without using any fuel resource, and at inflation proof prices on long-term contracts. Extensive studies have been made both by Southern Pacific and Bonneville Power Authority, the latter with the idea of developing outlets for government power. On basis of present costs the government study indicates Dieselization and electrification about even in long-term expense, but conservation of oil reserves might well prompt the government to encourage electrification by shouldering part of the capital expenditure necessary to deliver power to the right of way.

He Avoided St. Louis

For 39 years Pullman Porter Alexander Newborn has been riding the rails in all parts of the country, working out of Chicago. At present he is on the Erie, running round trips to Lima, O. But in all these years and miles he has never been in St. Louis, railroad crossroads of the United States.

A. C. Kalmbach.

The *Thomas C. MacRae* at Harrison

Motor No. 705, the *Thomas C. MacRae*, stands at the station at Harrison, Ark., in prestrike days. The M&A, as we go to press, has not turned a wheel since September 6, 1946, and officials of the 364-mile line have petitioned for abandonment. Before the strike the road ran a daily train each way between Joplin, Mo., and Kensett, Ark., and a daily round trip between Kensett and Helena, Ark. General offices of the company are at Harrison, midway between Joplin and Kensett. Photograph by M. B. Cooke, Jersey City, N. J.

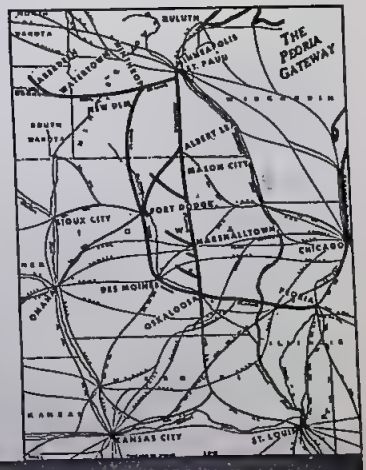
HARRISON

Speeding Freight IN THE GREAT MIDWEST

The Picture shows a train that is typical of new equipment that **THE MINNEAPOLIS & ST. LOUIS RAILWAY** has added to its car and locomotive fleets, in a modernization program begun in 1936 and going on constantly. On this, the M & St. L. already has spent some $30,000,000. New rolling stock includes 34 Diesel locomotives and nearly 3,000 modern freight cars of all types.

The Map shows the network of M. & St. L. Lines and its Peoria Gateway, which save precious hours on freight to and from The Midwest and move transcontinental traffic faster for connecting railroads as an essential bridge line.

TRAFFIC OFFICES IN 36 KEY CITIES
TELETYPEWRITER SERVICE AT ALL MAJOR OFFICES



The MINNEAPOLIS & ST. LOUIS Railway

GENERAL OFFICES: NORTHWESTERN BANK BUILDING • MINNEAPOLIS 2, MINNESOTA

A Branch Line Odyssey

Close to the most populous section of the East lies Delmarva Peninsula, domain of friendly local trains and unhurried living

BY FRANK P. DONOVAN JR.

One of the things I learned in physics as a high school lad was that "for every action there is an equal and opposite reaction." Now, here I was boarding a local at the famous old Broad Street Station in Philadelphia which would connect with a slower branch line accommodation on a still more leisurely schedule. Here, indeed, was a reaction to the minute-splitting, revolving-door action of urban living. True, my action was delayed, like many of the slow trains I was to ride, but the long-hoped-for odyssey into the Land of the Branch Line Local was now a reality. I was master of Time, and Time not master of me.

It struck me as a good omen when the fireman whistled "Casey Jones" as he leaned from the gangway of the trim Pacific awaiting the high-ball. In all my travels this was the first time I had heard a trainman or engineman whistling or singing a railroad tune. It was promising! So was the early-rising sun as it shone on the 7:35 train clicking over frogs and switch points along the Pennsy's weather-beaten "Chinese wall." The morning accommodation would ultimately end up at Cape Charles, Va., calling at all stops south of Delmar and at not a few between Delaware's northern and southern tiers. To Wilmington the ride is industrial and suburban; south of that city it is rural, pastoral, humble.

The Land of the Branch Line Local!

This was it! Perhaps I should say the last stand for the selfsame local, for along an 87-mile stretch the Cape Charles train connects with five branch trains, all chuffing steam passenger locals except for a lone gas-electric which gives way to steam Saturday, Sunday, and holidays. All this is on the Delmarva Peninsula, which has some of the finest concrete highways in the East. Indeed, the Eastern Shore, as the natives love to call their peninsula, abounds in contrasts.

The first was evident when the conductor shouted "Townsend. Change for Vandyke, Massey, Lambson, Kennedyville, Still Pond, Lynch, and Chestertown . . . *Town—send!*" There it was, standing on the side track — a Baldwin Ten-Wheeler coupled to a baggage car, a combine, two coal-laden gondolas, and a couple of "high cars." About a dozen passengers got off ahead of me at Townsend for Chestertown branch points. In a surprisingly short time they were seated, and the mixed train started, first moving slowly backward to the leg of a wye, then puffing on toward its destination. From time to time country folk, with suitcases somewhat the worse for wear, got off at flagstops after bidding our veteran conductor good-by. We paused at Massey long enough to shunt a box car on a siding and observe the once-busy station where passenger trains of other days branched off for Centreville.

The train was rocking along at a comfortable 35 miles an hour when there was a sudden application of brakes and we came to an abrupt halt. No station was in sight and the two remaining passengers were listlessly looking out

Delmarva

Spread the population of Columbus or Rochester over an area as big as Connecticut, push the land halfway out to sea, and squash it down so that nowhere is there a rise of more than a few score feet above the water and you have a paradigm that compares well with the Delmarva Peninsula. Although divided politically under the legislation of three states, the people of the "Eastern Shore" are more nearly like a single widespread community. But where Rochester or Columbus can be serviced by a few miles of freight sidings and a local bus system, the Pennsylvania Railroad must maintain 400 miles of right of way, 600 miles of track, and more than 100 stations with agents to accommodate Delmarva. Heaviest traffic is to and from the Cape Charles Ferry. As though to mock the main line, the 10 branch lines also terminate at the water's edge, usually on a dock. These feeders each bring handfuls of passengers and cars of produce for the big cities to swell the mainline flow.

the windows. But I noticed an uncommonly beautiful thicket with bright-colored berries glistening in the sun. Could it be . . . ? Yes, penknives in hand, the agile young fireman and subsequently the considerably older engineer were climbing an embankment.

The baggageman leaned out from the express car and shouted, "Get me a couple of branches, too."

"We're a little ahead of time," the conductor apologetically remarked to an apparently uninterested passenger. "Might as well take it easy." Then, with enthusiasm: "Y'know, that bittersweet will stay bright and colorful for over a year; it makes a dandy ornament for the house during the long winter months!"

Presently a half-dozen branches were stowed on an end seat of the almost deserted coach. The engineman again took his place at the throttle, the fireman at the shovel, and we highballed into Chestertown on the advertised.

One of the peculiarities of branch line travel is that you commit yourself entirely to the hands of the railroad. It may be decreed by timecard that you lay over a half hour or half a day at a lonely junction or obscure terminus. If you take it philosophically and in good spirit you'll get all the enjoyment Walt Whitman did out of his unplotted meanderings. At any rate, Chestertown is an attractive community beautifully situated on the bank of the river from which it takes its name. The green, well-kept campus of Washington College, the many old southern mansions, and the graceful weeping willows along the waterfront beckon the visitor.

It was nearing 4:45 p. m. when I saw engine smoke arising from the freight yard as my train was being made up. Upon arriving at the station I found the crew had everything in hand and its members were relaxing over a deck of cards.

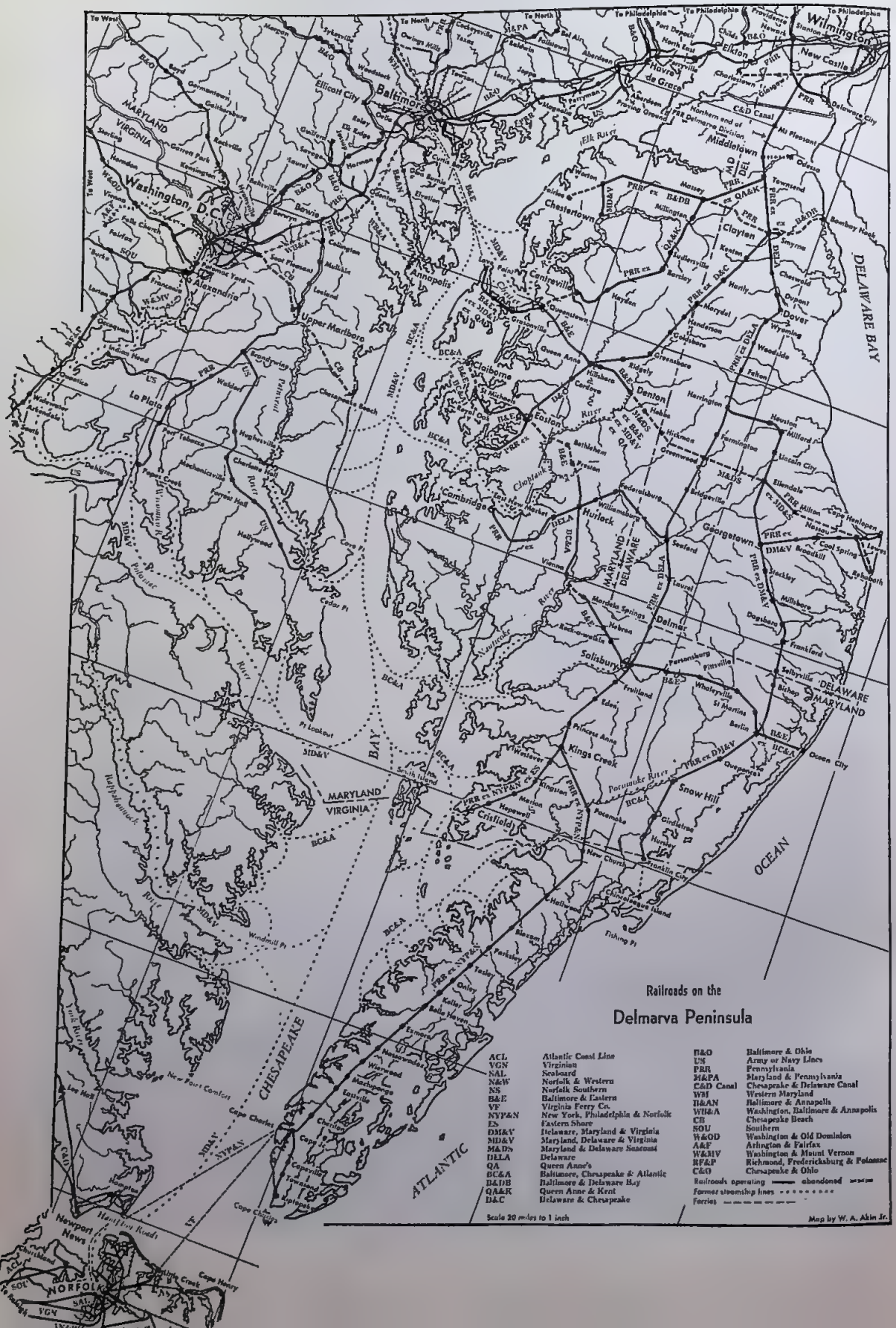
The 29-mile run back to the main line junction was made in approximately 30 minutes less time than the outbound trip, which is 2 hours 10 minutes by the card. "This," explained the conductor after punching a half-dozen tickets and sitting down to pass the time of day, "is because we work the line on the morning trip and only stop for passengers on the way in at night."

He went on to say he remembered when they had several well-patronized trains to Chestertown and Centreville. "Now the Centreville run has only a freight every other day, and this train easily takes care of all the traffic to Chester." Since the region is sparsely populated, most tonnage is billed through to the railhead; and the local is, in effect, a passenger run with several freight cars in tow.

"But on week ends we sometimes have a right smart load," continued the railroader, "and I've seen 'em standing in the aisles and

Baltimore & Eastern is the only railroad other than the Pennsylvania on the Delmarva Peninsula, and even it is controlled by PRR. Part of the B&E is the old Baltimore, Chesapeake & Atlantic, shown at Ocean City in 1895.

George B. Ritz, 1351 Fillmore St., Philadelphia 24, Pa.


Railroads on the
Delmarva Peninsula
ACL Atlantic Coast Line
VGN Virginian
SAL Seaboard
N&W Norfolk & Western
NS Norfolk Southern
B&E Baltimore & Eastern
VF Virginia Ferry Co.
NYP&N New York, Philadelphia & Norfolk
ES Eastern Shore
DM&V Delaware, Maryland & Virginia
MD&V Maryland, Delaware & Virginia
M&Ds Maryland & Delaware Seacoast
DELA Delaware
QA Queen Anne's
BC&A Baltimore, Chesapeake & Atlantic
B&DB Baltimore & Delaware Bay
QA&K Queen Anne & Kent
D&C Delaware & Chesapeake
B&O Baltimore & Ohio
US Army or Navy Lines
PRR Pennsylvania
M&PA Maryland & Pennsylvania
C&D Canal Chesapeake & Delaware Canal
WM Western Maryland
B&AN Baltimore & Annapolis
WB&A Washington, Baltimore & Annapolis
CB Chesapeake Beach
SOU Southern
W&OD Washington & Old Dominion
A&F Arlington & Fairfax
W&MV Washington & Mount Vernon
RF&P Richmond, Fredericksburg & Potomac
C&O Chesapeake & Ohio
Railroads operating —— abandoned - - -
Former steamship lines . . . . . .
Ferries — — — — —
Scale 20 miles to 1 inch
Map by W. A. Akin Jr.
DELAWARE BAY
ATLANTIC OCEAN
CHESAPEAKE BAY
MARYLAND
VIRGINIA
DELAWARE
MARYLAND
DELAWARE
Wilmington
Baltimore
Washington, D.C.
Annapolis
Alexandria
Middletown
Chestertown
Centreville
Claiborne
Easton
Denton
Cambridge
Hurlock
Federalsburg
Georgetown
Seaford
Delmar
Salisbury
Princess Anne
Kings Creek
Snow Hill
Crisfield
Pocomoke
Franklin City
Ocean City
Berlin
Selbyville
Frankford
Millsboro
Dagsboro
Milford
Harrington
Dover
Smyrna
Clayton
Odessa
Middletown
Elkton
Newark
New Castle
Delaware City
Upper Marlboro
La Plata
Leonardtown
Hollywood
Cedar Pt
Windmill Pt
Point Lookout
Cape Charles
Cape Henry
Newport News
Norfolk
Portsmouth
Hampton
Chincoteague
Wallops Island
Assateague
Fishing Pt
Hellwood
Tasley
Onley
Keller
Bells Haven
Parksley
Exmore
Nassawadox
Cheriton
Capeville
Townsend
Pungoteague
Wachapreague
Accomac
Onancock
Hallwood
Bloxom
New Church
Temperanceville
Horntown
Greenbush
Metompkin
Saxis
Wenona
Watts Island
Tangier
Crisfield
Somerset
Princess Anne
Kings Creek
Pocomoke
Snow Hill
Girdletree
Newark
Elkton
Perryville
Havre de Grace
Aberdeen
Bel Air
Baltimore
Towson
Ellicott City
Relay
Laurel
Bowie
Greenbelt
Alexandria
Fairfax
Falls Church
Vienna
Herndon
Sterling
Gaithersburg
Germantown
Brunswick
Martinsburg
Cumberland
Grafton
Clarksburg
Parkersburg
Huntington
Ashland
Ironton
Portsmouth
Columbus
Zanesville
Wheeling
Pittsburgh
Uniontown
Connellsville
Cumberland
Hagerstown
Frederick
Gettysburg
Harrisburg
Lancaster
Reading
Philadelphia
Trenton
Camden
Atlantic City
Cape May
Wildwood
Ocean City
Salisbury
Crisfield
Pocomoke
Snow Hill
Berlin
Selbyville
Frankford
Millsboro
Dagsboro
Georgetown
Seaford
Delmar
Hurlock
Cambridge
Easton
Denton
Centreville
Chestertown
Middletown
Dover
Smyrna
Clayton
Odessa
Wilmington
New Castle
Delaware City
Elkton
Newark
Havre de Grace
Aberdeen
Bel Air
Baltimore
Washington, D.C.
Annapolis
Alexandria
Upper Marlboro
La Plata
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New Church
Temperanceville
Horntown
Greenbush
Metompkin
Saxis
Wenona
Watts Island
Tangier

jamming the express compartment. "Still," he mused, "they want to take this train off, and they'll do it. Maybe not this year, but it's just a question of time."

There being no hotels along the branch, the conductor advised me to change at Townsend to the connecting northbound train and "put up" in Middletown for the night. This proved to be sound advice, for *the* hotel, while old-fashioned, was large, clean, and hospitable. Moreover, the veteran night clerk was something of an antiquarian as well as host, and remembered clearly the single-track electric to Odessa, scrapped over a quarter of a century ago. "The only trolley line ever operated on the Eastern Shore," said he. Time changes rapidly, but the pitcher and bowl in each guest room, the friendly clerk, and the aged townfolk chewing tobacco in the lobby seem to be permanent fixtures in the fine 19th century hotel.

Next day found me on the early morning local riding south to Clayton. There a branch train awaits folks holding passage to Easton, Oxford, and way stations. Alighting at Clayton with me was a carpenter who had worked for the Air Corps in Iceland. Having experienced the roar of a hundred planes preparing to leave on deadly missions, having felt the arctic gales and the incredible cold, he now had come to the quiet and peace of the Eastern Shore "to buy me a farm and spend the rest of my days raising cattle, growing vegetables, and being my own boss. I have my eye on a property 'tween here and Easton," he averred, "and I'm takin' the train right down to look it over."

While we talked, the tuscan-red gas-electric motor car backed from the yards and was spotted adjacent to a pile of express. Presently No. 451, the train I had taken from Philadelphia the previous day, came in from the north amid a cloud of smoke. Five minutes later some 30 people changed to the motor car, the conductor raised his hand, and the many-cylindered engine was given its head.

This train is well patronized, reliable, speedy. Flagstops are made grudgingly, and mail and express matter is handled with dispatch. Since curves are amply banked and grades virtually nonexistent, the motor job and express trailer zooms by grade crossing and village not unlike a junior-size streamliner. Its companionate motor unit, operating as the *Bullet,* hightails to and from Wilmington, Del., scarcely stopping at the mainline junction save to pick up passengers and toss off mail.

We sped by Denton Branch Junction, now scarcely more than a track connection with the Baltimore & Eastern since passengers no longer change here for Love Point on the Chesapeake, Lewes on the Atlantic, and Denton somewhere in between. Finally the flanges screeched around the curve as we entered Easton, county seat and principal business center north of Cambridge on the bay side of the historic Eastern Shore.

While passengers were disembarking and parcels were being unloaded, the engineer got down to look over his train. I noticed he was the same engineman on the Chestertown mixed the preceding day, and he in turn showed surprise in seeing me again. I learned he alternates between the two branches, piloting the car one day and guiding the Baldwin Ten-Wheeler on the other. With a fine sense of loyalty he, Washington Jester, emphasized the fact that the Easton line is "the best railroad, as a branch, on the Delmarva Division of the Pennsylvania. Moreover," he added, "we haul five cars over the week end and operate a G-5 engine to accommodate from 250 to 325 passengers on Saturdays and Sundays."

Beyond Easton, the road operates only on faith, a few parcels of express, and possibly a paying passenger. On this day only one man was ticketed for the whole trip. At Trappe we waited for the woman agent to lock up her station. She probably works the end-of-the-road depot at Oxford, too, and for aught I know, may finish the day sorting waybills at Easton. One could hardly have blamed the company for lopping off passenger service on this 10 miles of rusty rails ostensibly as a war measure to conserve man power and equipment. But on V-J Day the local citizenry persuaded the company to restore its *ante bellum* schedule.

To get to Cambridge, terminus of another branch, requires a road map, a stout pair of legs, the price of a bus ticket, or the roadside appeal of a stranded traveler. Because of a Greyhound strike I resorted to the latter strategy. An obliging motorist carried me to my next destination. The setting was not unlike the previous day: a throbbing steam engine, two express cars, and the characteristic combination coach, one half divided between mail and express, the other half for passengers.

The consist is indicative of the attention each item receives. You buy tickets in the freight office, walk up a ramp to board the train from the express platform and, in the fullness of time, when trunks, crates, and carboys are

George B. Ritz.

When the Maryland, Delaware & Virginia Railroad went on the auction block in 1924, part of it went to the Baltimore & Eastern and part went to a company later called the Maryland & Delaware Seacoast Railroad, since abandoned. No. 5↑ is shown at Denton, Md., in 1926. Much more modern is Pennsylvania's K-4 Pacific No. 2034, which hauls the crack Del-Mar-Va Express→ from New York City through Delmar, Del. (where it is shown), to the Norfolk Ferry at Cape Charles, Va.

slightly pushed aside to form a narrow aisle, you may work your way through to the single open door. The amazing thing is that a score of people brave the rebuffs and gross inattentions until they finally plop down in a somewhat dirty but not wholly unattractive green-plush coach seat. After that, victory is certain! The conductor is friendly, the fellow-riders hospitable and talkative. The fussy little train shrieks for each crossing and speeds along much like a limited and then condescendingly grinds to a halt at a wayside flagstop. But it leaves on time, arrives on time, and operates on a carefully-adhered-to schedule on its 19.2-mile journey.

The marshes and flat loamy farms which line the right of way are interspersed by hamlets with small wooden post offices bearing the names of the communities over their lintels. Mail may be brought by foot, on a pushcart, in a dilapidated wagon, or by a superannuated truck. But it gets there somehow in time to meet *the* train. Indeed, the puff of the engine, the clang of the bell means a good deal to each townsman, for it signifies the universal wistfulness and eager anticipation that comes with any mail delivery. For all the concrete highways and ever-present automobiles, the branch line local, the train which brings the mail, is a big thing, a vital and living institution on the Eastern Shore.

To be sure, the local isn't what she used to be. There are many places on the Delmarva Peninsula where it is dead; gone, but not quite forgotten. We are reminded of this at Hurlock, where the trucks click over the diamond that carries what is left of the old Baltimore, Chesapeake & Atlantic to a mill a few miles northward, and southward to Vienna on the shore of the Nanticoke. What a flood of memories the BC&A brings to mind, for it was once a household word on the peninsula. One look at the ancient highball signal still standing by Hurlock crossing, another view of the 70-pound rails at sundown, and, well, who could help but reminisce?

A decade and a half ago I remember reading in the Baltimore *Sun* (a paper steeped in tradition) about "Railroads on the Eastern Shore." The two early scheduled runs from Berlin to Salisbury, according to Charles J. Truitt in his history-feature story, were governed by train orders of a sort. In those primitive days the engineers, Charles Marshall and Samuel McMullen, received the following message:

Charlie will run until he meets Mack.
The nearest to the station will back back.

Even in its palmiest times the BC&A was never very up to date, as the ball-and-chain signal at Hurlock would indicate. Nonetheless, what it lacked in modernity it made up in quaintness. While the first transcontinental railway was spanning the continent in 1869, the Eastern Shore *entrepreneurs* were projecting their transpeninsula short line, styled the Wicomico & Pocomoke from the two rivers it would connect. Eventually the pioneer line became the

Rail Photo Service, 93 Massachusetts Ave., Boston 15, Mass.

BC&A, affectionately dubbed the "Black Cinders and Ashes" by the local folk. Gradually and painfully it extended its road until it ran from the seashore at Ocean City to distant Clairborne on the Chesapeake Bay. In its course it had three sizable bridges, one across the Choptank River near Easton, another spanning the Nanticoke at Vienna, and finally a costly structure carrying its rails from the mainland over sprawling Senepaxent Bay to Ocean City. In recent years, when truck competition became acute and the private auto got most of the passengers, the upkeep of these bridges was costly and all out of proportion to the diminishing traffic. The B&E, under Pennsylvania control, purchased the BC&A outright in 1928, and dismembered the road wherever it crossed a formidable body of water. The remaining trackage was used as extended sidings wherever it connected with the Pennsylvania Railroad.

Closely linked with the BC&A was a northern bay-to-ocean route starting at Love Point, Md., and ending at Lewes, Del. Originally called Queen Anne's Railroad, from the Old Line State's county of the same name, it underwent many reorganizations, on each occasion emerging with a new name. A branch at one time operated from Queenstown to Centreville. In subsequent years the line east from Denton was operated independently as the Maryland & Delaware Seacoast Railway until its abandonment late in the '30's. Today what is left of the northern transpeninsula road and the vestigial remains of the BC&A are lumped under the Baltimore & Eastern, wholly owned by the Pennsylvania but operated under separate management.

Enough of history, except for a nostalgic memory-picture of a high-stacked American locomotive, a light PRR baggage car, an old wooden Pullman operated as a parlor car, and several open-end wooden coaches awaiting at Love Point for the Baltimore ferry connection. Such a nondescript combination of equipment made the 138-mile run from the Point to Denton Branch Junction, thence south to Easton over Pennsylvania rails, and finally over the BC&A's right of way to Hurlock, Vienna, Rock-a-walkin, Salisbury, Berlin, and Ocean City. Running time? About seven hours, weather, tide, and track permitting. That was in the late '20's. Today what is left of the "Black Cinders and Ashes" and its sister road to the north is exclusively for freight. A couple of rare D-16 locomotives, the Pennsylvania's few remaining 4-4-0's, gingerly ply over the light rails, some

of which date back to 1880. Heavier motive power cannot negotiate the toylike tracks.

By this time our train has passed Federalsburg, which has a nebulous familiarity because it is the town in which the Railway & Locomotive Historical Society's *Bulletin* is printed. Many times have I seen the postal permit bearing that town's name, and I've been curious to know just where it is and if the rural setting has any bearing on its subject matter. Perhaps the printer is somewhat of a historian, too, and maybe he gets a thrill out of seeing the old branch train puff by his plant. At any rate, I like to think so. But most of the nice Eastern Shore charm and unhurried manner of living is left behind as the engine clangs by the huge Du Pont nylon factory at Seaford. We are back in industrial America! This is where the past comes to grips with the present and dangerously near to the machine age of the future. The branch train terminates at the mainline station.

To "do" the Franklin City line, which parallels the main line farther to the east, the traveler is obliged to bunk for the night at Seaford and arise at the appalling hour of five in order to catch the slow, easy-going accommodation northward to Harrington. However, he is rewarded manyfold, for the 78-mile capillary to the Pennsy's busy artery of commerce meanders through three states and finally ends half-spent at Franklin City (population 200) in the Old Dominion. True to form, the train is powered by an Atlantic, coupled to a day coach and baggage cars — five of them — all fully loaded and ready to roll. After mainline No. 451 brings in a carload of passengers for points on the Maryland, Delaware & Virginia branch, as the road is locally known, or the "Muddy, Dirty and Vicious," the engineer gives a few piping toots and we are Virginia-bound.

We call at every station — letting off passengers, unloading express, dropping mail. The two head-end cars in the olive-green livery of the New Haven road are filled with crates of hatching eggs from points up Massachusetts way, and they demand special attention. Being Washington's birthday, the classrooms are closed and the orange school buses wait at the stations silent and empty. For pupils? Not at all. They come to pick up the precious crates which are stowed in the vehicles from seat to ceiling. Good farms make for better schools and adequately paid facilities. The economy of the Eastern Shore is inextricably mixed in with the welfare of chickens, the condition of crops, and the care of cattle. The board of education realizes this, as does the railroader, the banker, the man on the street. Holiday or not, the chick must be served.

There is a friendly, homely, come-and-get-acquainted feeling, too, about the wayside station, not found in the North. The agent is well known, respected, and his opinion of things and events bears weight. He gets the afternoon paper immediately upon arrival, receives and

In its acquisition of other railroad companies the Pennsylvania has built up a hash assortment of motive power of which No. 6536→ is an example. This Atlantic was originally built for the New York, Philadelphia & Norfolk, which PRR leased in the early '20's. She is shown at Ocean City in 1940. Eight-Wheeler No. 5079↓ is of Class D-16, used on the Love Point-Easton line of the B&E.

Granville Thomas, Millville, N. J.

sends telegrams for townfolk, hears current happenings firsthand from passengers who have been in the big eastern cities. People come to the depot just to see the train arrive, and little Negro boys and girls gambol about the platform and play hide and seek around the express cart as if it were their own back yard.

Many of the stations are of dull red brick, sturdy and enduring. Some are ornate, like the Berlin depot, patterned apparently by a southern architect with sweeping *porte-cochere* reminiscent of Saratoga trunks, carriages, and crinolines. Now, alas, the portico has a rough board freight platform built in the driveway. Moreover, the crescent-shaped platform where BC&A's Ocean City shuttle trains were once spotted is in advanced stages of decay and the track itself has a promising stand of weeds.

After leaving Snow Hill we had one lone passenger, and she, a hefty woman with a well-filled market basket, was assisted down the steps at Girdletree flagstop. Here, too, the expressman and another blue-jumpered individual who may have been the fireman, came back to fellowship with the crew.

The train wyed into Franklin City, set out a car, and all hands repaired to a near-by candy and soft drink store. A pier, a station, and a cluster of cottages is all that is left of a once-thriving dockside community. Before they built the highway bridge to Chincoteague, a ferry linked the island with the mainland at Franklin City. Boats still take poultry feed from one or two box cars on the little-used wharf. Old-timers remember when 15 carloads a day were regularly billed for Franklin.

Steamers on the marine lines of the BC&A came up the rivers from Chesapeake Bay as far east as Snow Hill, Salisbury, and Seaford. All west side railheads on the Delmarva Peninsula had their own wharves, and boat lines operated out of Baltimore by and in conjunction with the railroads. At one time the BC&A alone had 17 steamboats sailing along its 1426-mile waterway system. Now all that is left of the railroad-operated fleet is the ferry plying between Baltimore and Love Point and, of course, the Pennsylvania's lucrative Cape Charles-Norfolk and Cape Charles-Little Creek services.

To get from Franklin City to Crisfield one has to resort to hiking or, what is less arduous, wheedling a ride from a passing motorist. By using both methods of propulsion I reached

George B. Ritz.

Frank P. Donovan Jr.

The branch line local↑ between Clayton and Oxford, Md., terminates on a wharf. The line was at one time linked with railroad-operated steamship service to Baltimore and other Chesapeake Bay points. The steamship Talbot↓ is of the Baltimore & Eastern Railroad Company-Baltimore & Virginia Steamboat Company fleet. Engine 5725↘ is a stocky Ten-Wheeler which performs all road and yard work on the Pennsylvania's Chestertown branch. It is at Charlestown where passengers disentrain.

Courtesy Baltimore & Virginia Steamboat Co.

Crisfield by dusk and stayed overnight in an old-fashioned tourist home. The town of 4000 people is built on oysters, literally and figuratively. Oyster shells are in the streets, alleys, and back yards. Oystering to this day is the community's prime occupation.

Even the railroad ends on an oyster boat pier. Its freight is largely sea food. Its passengers are sailors, shipwrights, ship chandlers, oystermen; an appreciable part of the mail comes from the many islands by boat. Railroaders and seamen meet on the pier; goods and cargo are exchanged from one hand to another. Alongside the train are the good ships *Island Belle* and *J. E. Stevens*, the former sailing for Smith's Island, the other for Tangier. The captains of the respective boats are busy loading mail, express, foodstuffs, and a few chunks of ice into the holds. Some passengers are booked for rail, others for water; and all seem to glow as the bright sun reflects from the waves and the tangy, zestful sea breeze gently slaps their faces. Life is wholesome in Crisfield, and a bit rough, too, as the many taverns fronting the main street would suggest.

There are not many passengers buying transportation at the ticket office on the pier, and the agent beckons for us to come in the side door of his inner sanctum. "Just a minute while I get change," he says, and we go over to the till as if we were a trusted friend. The station master very fittingly has bright-hued timetables of the Cape Charles, Old Point Comfort, and Norfolk steamship line on the rack alongside the sober, stereotyped Delmarva timecards.

Frank P. Donovan Jr.

Why the train should leave at approximately noon to anticipate the mainline express by over 2½ hours is a puzzle. Conversely, and equally strange, is the railroad's solicitude for its patrons by giving them an ultra-fine ride in a fluorescent-lighted coach (for daytime travel) outfitted with deep-cushioned seats having headrests and foot racks so the 19.2 mile run may be made in comfort, not to say luxury. My guess is that the answer cannot be found in the division superintendent's office nor that of the passenger traffic manager, but an explanation could probably be wangled from the general freight agent whence the money comes to subsidize the passenger run.

Despite this take-it-or-leave-it policy regarding scheduling, many riders take it quite willingly. Not from the pier, as we have seen, but at Pine Street, half a mile townward, passengers board the car in droves. Since trains are limited to a walk incident to the railroad running up the center of a concrete highway, latecomers often board it on the fly.

After every seat is taken and the town limits recede in the distance, the local creeps up on a fast-stepping horse and wagon, passes it; overtakes a shambling truck, leaves it behind; and, much to the delight of youngsters leaning out of the coach windows, puffs alongside a trim sport roadster. Then, a-chuffing and a-swaying (loud cheers from the kids now), the three-car train edges past the roadster, leaving in its wake a shower of cinders and clouds of smoke. By this time, heightened by the race, all the passengers are imbued with a carefree Saturday afternoon atmosphere of a humble branch line train "goin' to town."

For all its luxurious appointments the all-steel car rocks and tosses over rough, poorly ballasted track. On we go past fields of tall yellowing grass, through fen and farm, past clean white homes and shoddy weather-beaten hovels, a region of wealth and want. The level concrete highway is of one era, the wagon and mule which one occasionally observes clopping along its smooth surface is an anachronism of another. Such is the Eastern Shore, where the past meets the present head on.

The train joins the main stem at Kings Creek and continues on to Delmar, division point of the Pennsylvania. Here, also, is the end of the old "Nyp and N," the first and most profitable road in that part of Maryland lying within the Delmarva Peninsula. Originally called the Eastern Shore Railroad, it was projected to run from the Delaware-Maryland state line to the small fishing village of Crisfield. Ultimately it did with a branch to Pocomoke, thereby having a "main line" to the bay and a secondary road terminating on a navigable river.

Came at this point an outsider, one William L. Scott of Erie, Pa., who had vision, some money, and a lot of initiative. Why not link all Dixie with the teeming cities of the eastern seaboard by a direct north and south rail line? He sought Pennsylvania Railroad aid in launching the project. "Not interested," was the curt reply from the PRR's directorate, excepting for Alexander Johnston Cassatt. And the exception proved the rule, for Cassatt, with Scott and others, formed the New York, Philadelphia & Norfolk, and built 65 miles of line through swamp and stream and thicket to Cape Charles. The gap from the southern tip of the peninsula to Norfolk was bridged by a railroad-operated ferry, and their dream was realized.

Years later, when Cassatt headed the mighty Pennsylvania, he continued to operate the NYP&N as an individual road, and, it is said, would not allow the "Standard Railroad of the World" to purchase it. Finally the Pennsylvania did get the title and at the Eastern Shore road's price: $150 for stock having par value of $50 a share.

Today the "main stem" is double-track and serves as a strong backbone of the Delmarva Peninsula. Long, heavy freights continually rumble from one end to the other carrying fruit and raw materials to the North or manufactured articles bound for southern markets. Much of the tonnage goes through the peninsula scarcely stopping except for icing, inspection, or engine-change, for the road has become a great highway and a valuable asset in relieving the railroad bottlenecks at Richmond and Washington. To this stream of longitudinal traffic, however, the many branches feed and enrich the main line making it still more useful and efficient. As rivolets empty into a river making it powerful and enduring, so these secondary lines pour their traffic into one mighty artery of commerce.

So we see that the Eastern Shore, exclusive domain of the Pennsylvania Railroad, has both the fat and the lean. We leave Delmar on the crack *Del-Mar-Va Express*, admiring the sleek Pacifics, the heavy Mikados, and a barrage of modern motive power. But along with the "big boys" is a lone 4-4-0, the quaint American locomotive reminiscent of early-day railroading and symbolic of the Land of the Branch Line Local.

The "OP" Diesel

Fairbanks-Morse opposed-piston engine is used in Kansas City Southern's new 8000-horsepower locomotive for heavy freight service

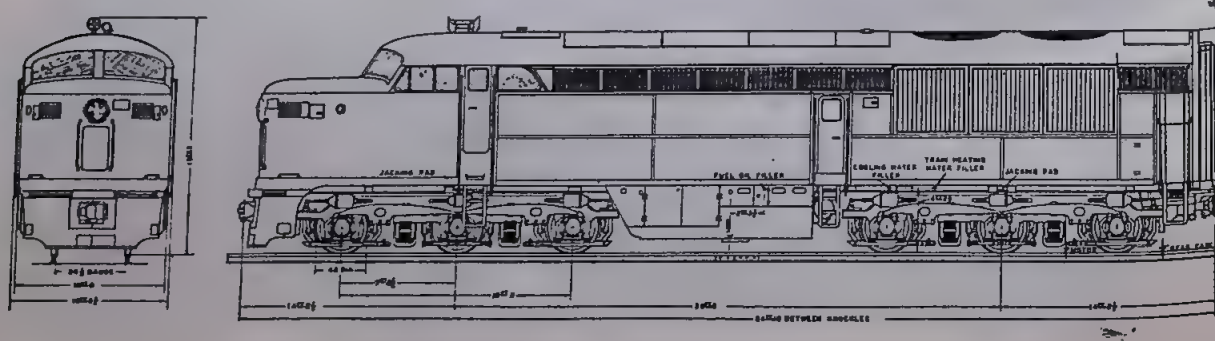
Different from most Diesel-electric locomotives is the Fairbanks-Morse 2000-horsepower unit, four of which recently went into service on the Kansas City Southern as one locomotive, reputedly the most powerful Diesel-electric locomotive in the world. Nearly 260 feet long, weighing 1,355,000 pounds, this yellow, red, and green 48-wheeled freight hauler develops 8000 horsepower and 232,000 pounds tractive effort.

But the F-M locomotive's difference from other Diesel-electrics does not lie in its great length, its number of wheels, nor its power. Any manufacturer of 2000-horsepower units could build an 8000-horsepower locomotive consisting of four units. The great difference lies in the fact that F-M uses fewer cylinders to develop its power — although, to keep the record straight, it must be admitted in the same breath that it takes more pistons to do it.

This paradox arises from the fact that F-M uses a two-cycle opposed-piston engine, in which two pistons work at opposite ends of one cylinder. The 2000-horsepower 10-cylinder in-line engine thus has 20 pistons, four more than the usual 16-cylinder engine. The pistons do double duty, not only transmitting the force of combustion to the two crankshafts but acting as valves as well. As the bottom piston moves toward the outer end of its stroke it uncovers the exhaust ports, allowing burned gases to escape. The upper piston then uncovers the air inlet ports and the blower furnishes fresh air. The exhaust port closes as the bottom piston begins its return stroke, and the inlet port closes as the upper piston follows suit. The air in the cylinder is compressed as the two pistons approach each other, fuel is injected and combustion takes place, forcing the pistons apart. All this occurs during but one revolution of the crankshaft. The more conventional four-cycle engine requires two revolutions of the crankshaft between explosions.

Advantages claimed for this design are compactness, simplicity, economy, lower piston speed for effective stroke, elimination of cylinder heads and valves with attendant overheating difficulties, more efficient cooling, smooth running, and improved accessibility to parts requiring possible attention while en route. The engine was designed primarily for railroad use, and the first engines which went into service in 1939 are still operating successfully. During the war the entire output of the company was taken over by the Navy.

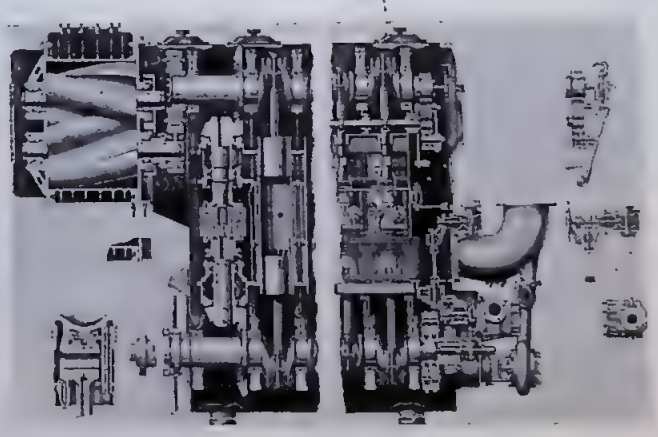
The Kansas City Southern locomotive is the third road locomotive delivered by Fairbanks-Morse since it entered the railroad locomotive field. The first, an A-B-A combination producing 6000 horsepower, was delivered to Union Pacific early in 1946. Another 6000-horsepower A-B-A went to the Milwaukee Road later in the year. The KCS A-B-B-A was delivered last December, just in time to be of use during the coal strike. F-M also builds switchers.

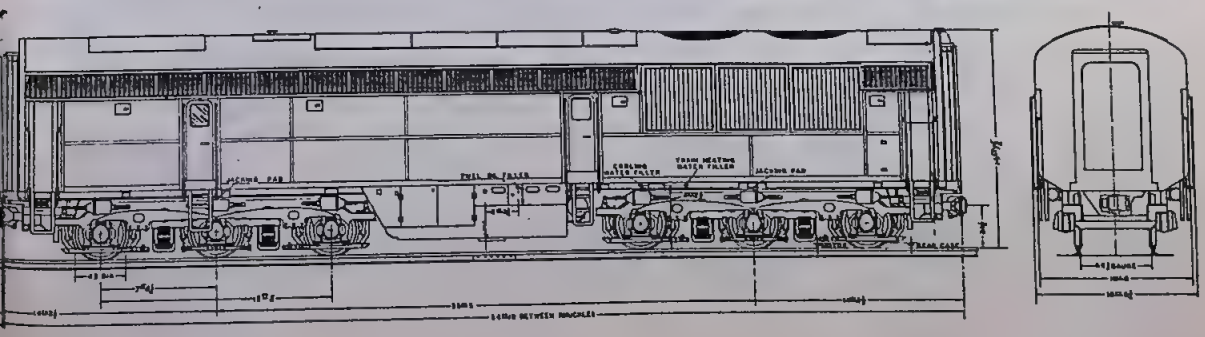


In external appearance the Fairbanks-Morse road locomotive is like other streamlined Diesels. The "A" unit is more square-nosed than an Electro-Motive, but less than an Alco.

Each unit is 64 feet 10 inches long, with a total over-all length of 259 feet 4 inches for the four coupled units. Trucks are six-wheel with two driven axles and one idler. Wheels of the KCS locomotive are 42 inches in diameter. Two motors are mounted on each truck. A gear ratio of 70:17 gives a maximum speed of 68 miles per hour and a continuous tractive effort of 163,920 pounds at 15½ miles per hour, ample to haul long trains without a helper over the Kansas City Southern's 1.8 per cent grades between Pittsburg and De Queen.

Now in service on Kansas City Southern's line of heavy grades and heavy tonnages between Pittsburg, Kan., and De Queen, Ark., is Fairbanks, Morse & Company's latest contribution to the railroad field: an 8000-horsepower Diesel-electric locomotive↑ in four units. The opposed pistons↓ in each of the 40 cylinders (10 per unit) do away with cylinder heads and valves, one piston serving as intake valve and the other as exhaust valve while each serves as a cylinder head for the other. Side elevation of "A" and "B" units extends across these pages.





Colorado Twilight

One of the most thrilling sights in American railroading is to watch a train of 60 empty gondola and hopper cars buck the grades out of Colorado City through Manitou and around Pikes Peak to Cripple Creek. It takes five Midland Terminal locomotives to handle the string on the four per cent grades. Operations start about dusk. After several hours' climbing the train levels off and twists its way to the mining center. Cars are exchanged for loads of ore and gravel and the return trip is made with only two or three engines just to maintain the air for brakes. The light engines come down the hill alone and about 15 minutes apart rather than coupled together in groups.

Conemaugh Crossroads

Pennsylvania Railroad's Kiskiminetas Junction sees variety of trains from all directions as they clatter past busy AJ Tower

BY C. E. STARR

Thirty miles north of Pittsburgh, at the confluence of the Allegheny and Kiskiminetas rivers in Pennsylvania, lies Kiskiminetas (or "Kiski") Junction, crossroads of the Pennsylvania Railroad's Conemaugh Division where the low-grade freight line from Conway to Conpitt Junction crosses the north-south line from Pittsburgh to Oil City. [See map, page 32.]

Kiski Junction is on the east bank of the Allegheny River, across from Freeport, and on the south bank of the Kiskiminetas River, opposite Schenley. AJ Tower stands at the crossing and controls the interlocking plant, while a modest station stands in another quadrant formed by the crossing. A mile east of the junction are yards and car shops. The Schenley branch meanders along the north side of the river and serves several coal mines.

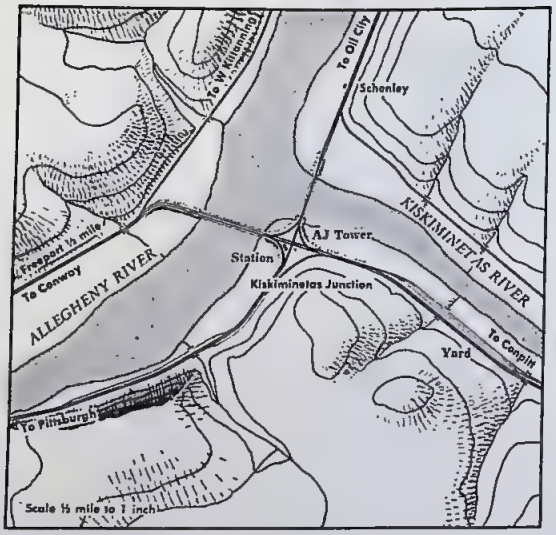
The Pittsburgh-Oil City line was formerly the Allegheny Valley Railroad. Absorbed by the Pennsylvania in 1910, it is still known locally as "the Valley Line." Over its two tracks on the east side of the Allegheny River, moves freight between Pittsburgh and Buffalo, N. Y. Coal for Buffalo and Canadian destinations makes up a large part of the northbound movement, which also includes a large volume of other freight moving through the Buffalo gateway.

Trains 914 and 911 provide through overnight passenger service between Pittsburgh and Buffalo. Daylight trains 904 and 901 make a daily round-trip run from Pittsburgh to Oil City. Supplementing this service are four northbound and five southbound locals which pass through Kiski daily except Sunday.

The east-west line, formerly the Western Pennsylvania Railroad from north-side Pittsburgh to Blairsville, is still known as "the West Penn." This line was constructed on the site of the old state-built Pittsburgh-Harrisburg canal which hauled canal boats over the mountains on an inclined plane known as the Portage Railroad. The West Penn was completed in 1866 and was later acquired by the Pennsylvania to provide a through east-west freight line which not only relieved the main line (Pittsburgh Division) but afforded better grades along the Allegheny, Kiskiminetas, and Conemaugh rivers. Over this low-grade line one locomotive can handle a heavy train from Conway Yard, 22 miles west of Pittsburgh, to Conemaugh Yard near Johnstown, where a helper is added for the climb to Gallitzin. Two engines would be needed to haul the same train over the Pittsburgh Division tracks from Pitcairn to Conemaugh. A line relocation is now under way between Salina and Social Hall to by-pass backwaters of the Conemaugh Dam which is also under construction [page 32].

The low-grade line is used to move eastbound freight from Conway, at the junction with the Fort Wayne Division, to Conpitt Junction, where the Conemaugh Division joins the Pittsburgh Division to con-

C. E. Starr, 314 Union Station, Erie, Pa.



Jim Breth; from C. E. Starr.

Engine 6777 noses off the Allegheny bridge↑ toward the junction. Westbound VC-1, the Enola-Cleveland hot shot headed by engine 6956↗ is about to cross the bridge. Part of the tower can be seen beyond the pilot.

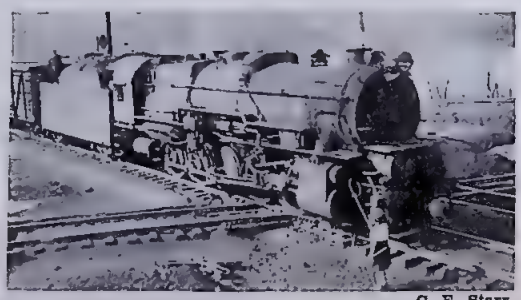
tinue to Altoona and beyond. Just as the 0.3 per cent ruling grade helps the railroad move freight up the hill with fewer engines, it likewise assists westbound trains in descending without excessive braking.

At Kiski Junction one may observe the continual movement of trains, loaded and empty, in all directions. The east-west movement is much heavier than the north-south movement, including eastbound coal trains known as "B extras," fast symbol freights from Chicago connections to the East, and the famed FW-8, *Man-O-War*, the Pennsylvania's crack livestock train. Westbound traffic includes trains from Potomac Yard and Enola bound for Cleveland, Detroit, Chicago, and beyond. East-west passenger traffic consists of one train (daily except Sunday) each way between Pittsburgh and Blairsville, and several local runs between Pittsburgh and Apollo, and between Pittsburgh and Kiskiminetas Junction.

Across the river at Freeport is the southern terminus of the Pittsburg & Shawmut Railroad; PRR-P&S interchange is at the west end of the Allegheny River bridge. The Butler branch joins the Conemaugh Division at the south end of Freeport, and a few hundred feet west on this branch interchange is made with the 12-mile Winfield Railroad.

Busy, bustling Kiskiminetas Junction is truly a railroad junction in the strictest interpretation. No highways serve the station.

Betty Singer↓, second trick operator, hands an order to the crew of FW-8 riding in a Class I-1 locomotive. Along the Allegheny near Freeport↘ are stretches of multiple track. The bluffs usually are only a few feet from the river. Pennsylvania Railroad follows both banks.



C. E. Starr.

A Butler local crosses the Oil City line. This view looks northward and the Kiskiminetas bridge can be discerned in the distance. A double track becomes single on bridge.

C. E. Starr.

C. E. Starr.

K. L. Zurn; from C. E. Starr.

Ken Zurn; from C. E. Starr.

Bound for Altoona with an extra freight, engine 6777 crosses the Allegheny River bridge↑ which links Freeport with Kiskiminetas Junction. This Class M-1 locomotive is easily capable of dragging its heavy train over the gentle 0.3 per cent grades of the Conemaugh Division. A head-end brakeman enters his tender cupola↓ as engine 4265 begins to pull westward from Kiski. Snow pile in foreground indicates Pittsburgh-Oil City line which crosses east-west line just out of picture. Station platform is marked by baggage truck at left. Hill in background is across the Allegheny River; Kiskiminetas River runs roughly parallel to the train, on opposite side. Kiski is 29.8 miles from Pittsburgh by one line, 30.2 by the other.

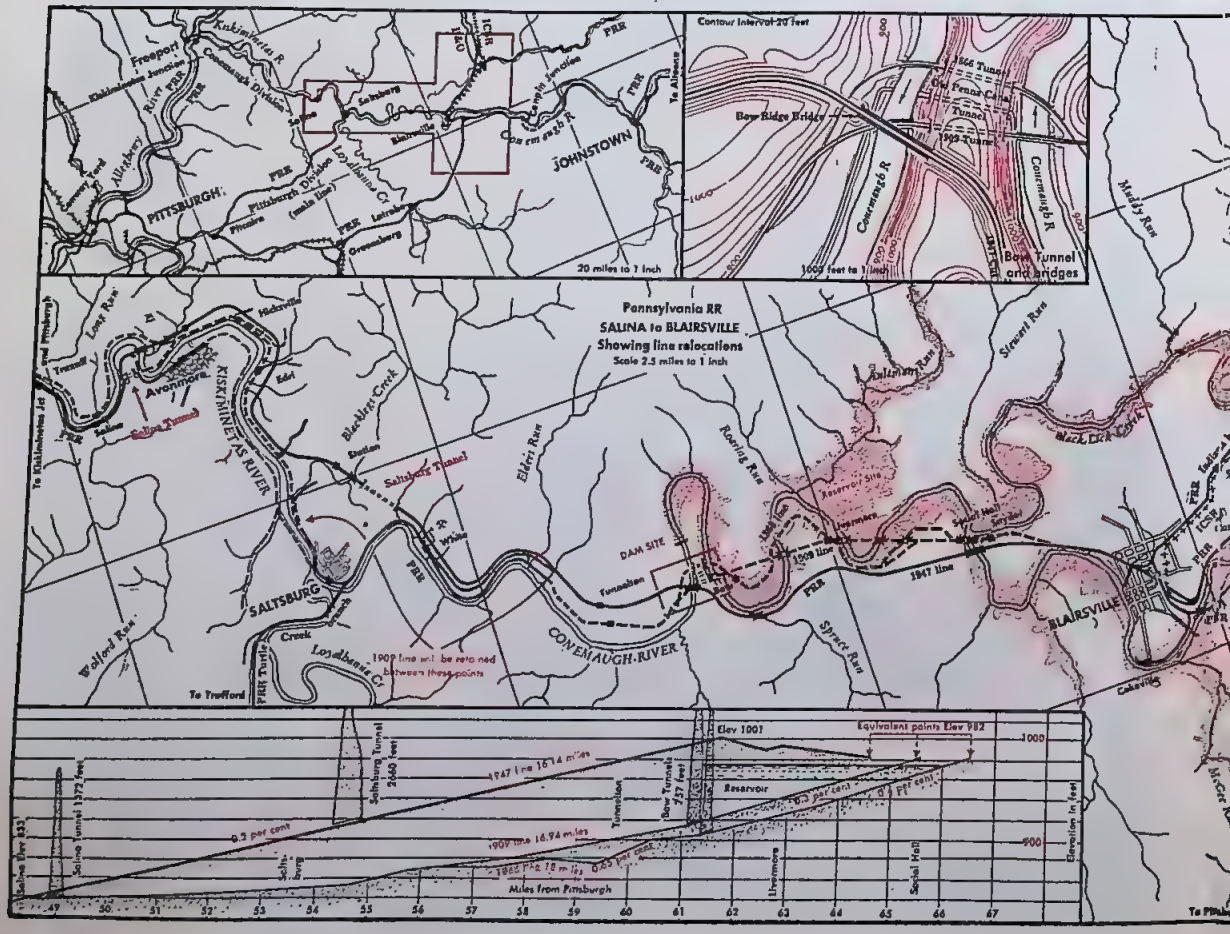
Ken Zurn; from C. E. Starr.

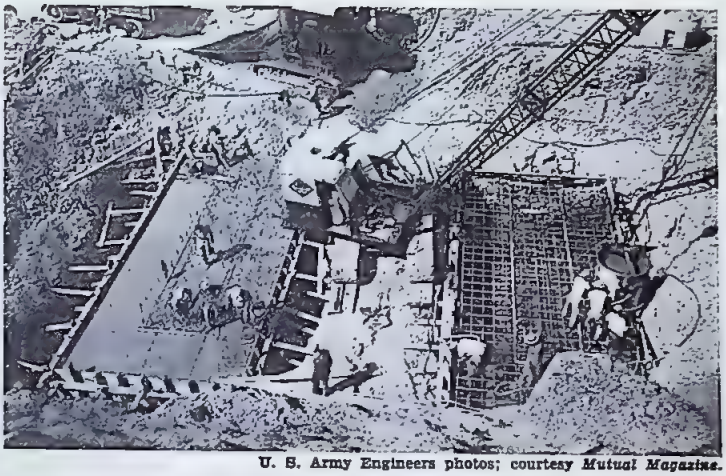
Bill James; from C. E. Starr.

Looking eastward↑ from the Freeport side of the Allegheny River. Train on bridge is a shifter known as the "Gunny"; it has just left Kiskiminetas Junction (barely discernible in background haze, right). At left in the background is the single-track Kiskiminetas River bridge to Schenley. During the winter of 1945, PRR leased "Baby Mike" 207↓ from the Pittsburg & Shawmut. Here she sits on northwest leg of the wye at Kiski Junction. Freeport Junction is in background across river.

C. E. Starr.

Courtesy *Mutual Magazine*, Pennsylvania Railroad.





U. S. Army Engineers photos; courtesy *Mutual Magazine*.

Traffic flows uninterrupted over the present main line of the Conemaugh Division while concrete piers of the new Social Hall bridge← await the steelwork which will carry the tracks over the Conemaugh River. Workmen↑ lay the foundation for the east abutment of the Spruce Run bridge, 3½ miles upstream from the dam site. Such construction will consume 87,000 cubic yards of concrete.

Conemaugh Dam Relocation

How to raise a railroad by 20 feet without increasing the ruling grade was the problem which confronted army engineers when they set about relocating 17 miles of track on the Pennsylvania Railroad's Conemaugh Division to make way for backwaters of the projected Conemaugh Dam. The ruling grade is 0.3 per cent, a "water-level" route which enables single locomotives to move heavy freight from Pittsburgh to Johnstown, Pa.

With government money at their command to meet the cost of constructing the new line, the engineers did a remarkable job. They not only met the ruling grade, but at the same time shortened the line by nearly a mile. For 13 continuous miles the new line, now under construction, will ascend at a uniform 0.3 per cent. At its peak it will be 19½ feet higher than the present line, and the distance from Salina to Blairsville will be shortened by eight-tenths of a mile. The new track will cost in the neighborhood of $16 million.

Pennsylvania Railroad officials were naturally perturbed when the government proposed to inundate a portion of their low-grade line in order to control floodwaters in the Pittsburgh district and upper Ohio River Valley. They pointed out that the railroad had already gone to great expense to build the existing line in 1909, when the route of the original West Pennsylvania Railroad had been straightened out and leveled off. But Uncle Sam had no intention of making the railroad suffer because of his own ambitious project. "The government will relocate the line to your satisfaction and at government expense," said uncle Sam.

Contracts for the new line were let April 18, 1946, and work commenced a short time later. Completion is expected to be in late 1948 or early 1949, after which passengers on the single daily-except-Sunday Pittsburgh-Blairsville passenger train will be able to look out the windows at Bow Ridge, midway between Livermore and Tunnelton, and see the bridge of the present line, piers of the original West Penn line, and three tunnel mouths — two for the railroad in its separate locations and, sandwiched between them, another which carried canal boats through the ridge in the days of the Pittsburgh-Harrisburg canal. The new line will make use of a deep cut instead of a tunnel. Only the west ends of the three tunnels will be visible, for the east ends will be flooded by dam waters. The bores

U. S. Army Engineers photo; courtesy *Mutual Magazine.*

On August 8, 1946, work was begun on the approach to Saltsburg Tunnel. Spot in front of shovel is cliff, not hole.

Five months later to a day, the same scene looked like this. The pioneer bore has been drilled and approach graded.

will be plugged to prevent by-passing of the dam.

In order to relocate the tracks it is necessary to build nine new bridges, six of which will span water, and a 2660-foot tunnel which will cost about $650 per lineal foot. About a mile of the new line will pass over worked-out coal mines. To prevent possible cave-ins the mines have been filled by forcing materials down from the surface through drilled openings.

Moving a railroad involves much more than merely grading a new right of way and laying new tracks. While most of the project is being done by the United States Government under contract, the railroad itself is undertaking some of the work, partly by contract and partly by railroad forces but mostly at government expense. This work includes the stringing of 16 miles of new telephone and telegraph lines, a power line and cab signal system, ventilating system for the new Saltsburg Tunnel, new coaling and watering facilities at Truxall to replace those at Avonmore, construction of 1¾ miles of siding east of Truxall, and construction of station and other wayside buildings. Such items as the new Truxall coaling station and additional lengths of sidings will be paid for by the railroad.

One five-mile section of the present line will be retained.

At Bow Ridge the Conemaugh River is studded with bridge piers — past, present, and future. The present line bisects the new, which is about 20 feet higher at this point. At right is a bridge pier on the original West Penn line.

Courtesy Mutual Magazine.

Memorial Day on the C&NW

Every May 30 since 1888, some Chicago & North Western employee has decorated the grave of "the little fellow"

Out on the windswept prairies of northeastern South Dakota, a few miles from the small farming town of Elrod, crewmen of the Chicago & North Western's train No. 106 will observe Memorial Day as it has traditionally been observed every year for the past 60 years. The branch line motor train will stop in the open prairie alongside a lonely trackside grave; the trainmen will deposit some flowers on the grave and stand in silent tribute for a minute. They will thus honor not only the unknown occupant of the grave, but a departed fellow employee as well: Bill Chambers, who began the voluntary upkeep of the lonely tomb in 1888. Bill, too, is now among the dead.

Behind that simple show of respect for the departed is an often told story of a railroad man's devotion for a little boy. There are two versions of the story, differing in detail but essentially the same in text. One story has it that the boy was the son of a couple which manned the cook car of a construction crew's quarters. Bill Chambers, then a brakeman on a ballast train, spent his evening hours telling "the little fellow" about the wonders of the big cities of the East, where little boys wore shoes every day all year 'round and where fine stores had their show windows filled with wonderful articles dear to the hearts of all little boys. The other story denies that Bill Chambers ever knew the little fellow, whose age may have been anywhere from six to 12, but only had a waving acquaintance with him as Chambers' train sped past the sod shanty near Elrod where the boy lived with his parents. But this waving acquaintance became something which both man and boy looked forward to every day.

Both stories agree that Bill took it hard when the little fellow died. In the first story, Bill aged through the boy's short illness and helped with his burial. The youngster's parents said that some day they would come back for his body, and Bill promised that until that time came he would see that the grave was cared for. In the second version, the brakeman looked in vain for his trackside pal one day but found only a freshly dug grave. The boy had asked to be buried "where the train goes past and the man waves."

Anyway, Bill Chambers took it upon himself to care for the grave. Every time his train went past the spot he would stop and clear away the spreading grass and tumbleweed. He marked the tomb with a rough boulder, without identification, and this lends support to the version that Bill never knew the youngster. As the years went by and the boy's parents failed to come for his remains, Bill kept at his self-appointed trust. He became a freight conductor, then a passenger conductor; but always, at least once a year on Memorial Day, he kept his tryst.

When Bill Chambers reached retirement age he asked his successor, Conductor Martin Redmond, to carry on for him. Redmond did so until he retired and then Section Foreman John Hanson took up the vigil. Four other section foremen in turn have watched over the grave. Other North Western employees are ready to carry on, for none of them would want to disappoint old Bill Chambers, who died in 1939.

Thus it is that each year this little grave by the side of the tracks is cared for by tough old railroad men with a soft spot in their hearts. Every Memorial Day, Bill Chambers' sister goes down to the Redfield station just before the train pulls out and gives the engineer a potted flower. And just as regularly, Bill Chambers' daughter hands the engineer a bouquet of flowers. No one has to tell him what to do with them. He knows. He stops his motor-powered train at the grave and, together with other crewmen, stands in silence as the conductor takes the plant and bouquet and places them on the grave, which since 1944 has been marked not only by Bill Chambers' original boulder headstone but by a white wooden cross as well.

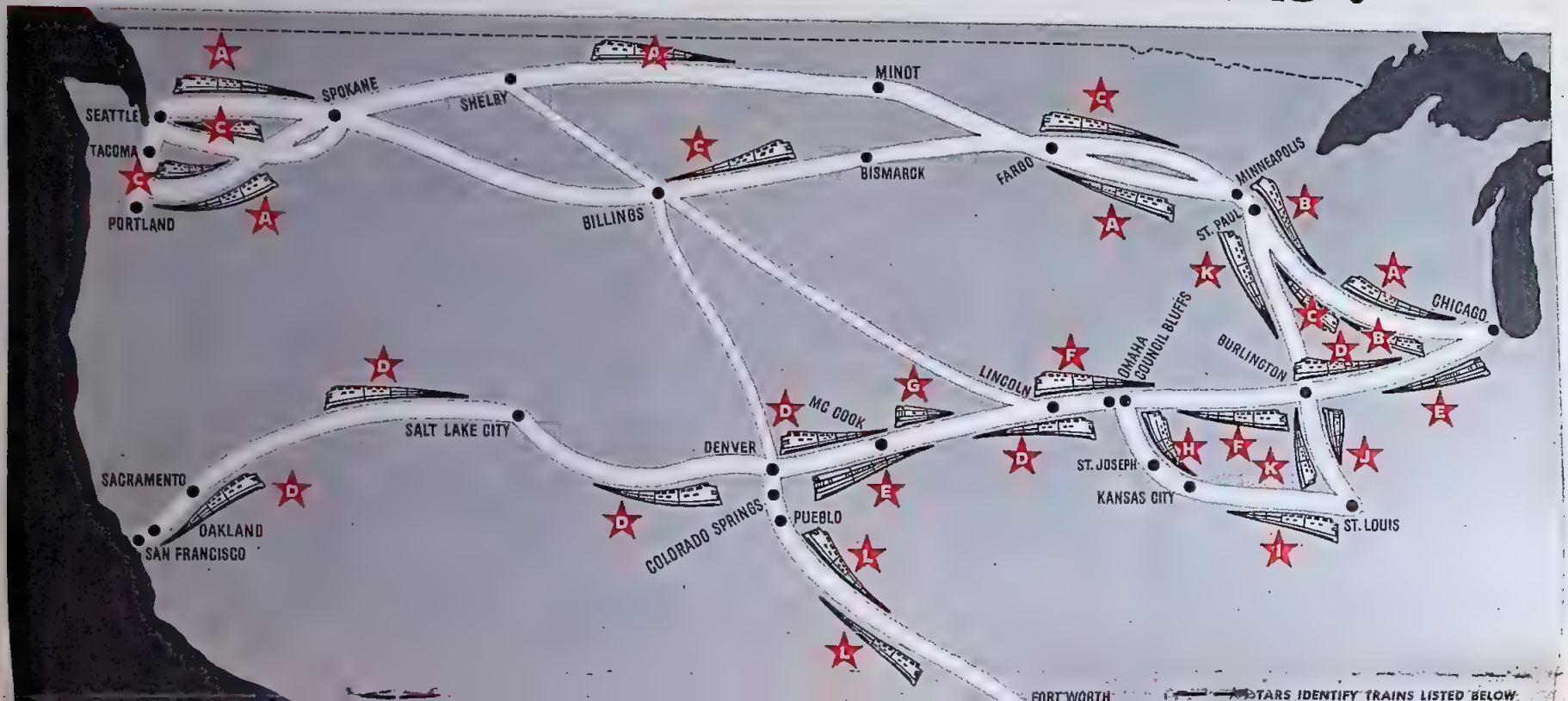
Other trackside graves are strewn across the country, and each, as a rule, is well cared for. Dead Man's Cut on the Milwaukee Road, about six miles west of Portage, Wis., is named for the unknown trackworker whose remains lie there beneath a lonely mound.

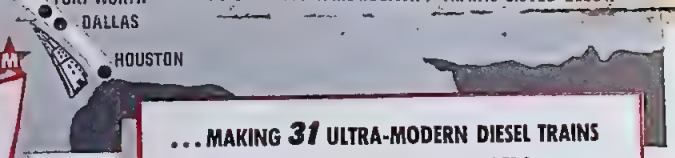
Better tended than many a grave in a cemetery is the last resting place↓ of Bill Chambers' unidentified chum. Trainmen place floral contributions, stand in reverent silence→ as a tribute not only to the boy, but to Bill.

Chicago & North Western.

1947 A GREAT YEAR

FOR BURLINGTON PASSENGERS !





18 NEW STREAMLINED DIESEL-POWERED TRAINS THIS YEAR...

The BURLINGTON's Big Parade is on its way!

Five of the eighteen new streamlined trains scheduled for 1947 are already serving Burlington passengers. Others will be in service this spring, summer and fall.

These exciting new trains will have the most modern equipment and accommodations—coaches with reclining seats . . . luxurious parlor-observation cars...restful diners and modern coffee shop cars . . . entrancing cocktail lounges. The sixteen transcontinental trains will offer a wide variety of sleeping accommodations. Eight of the trains (the new TWIN ZEPHYRS and the CALIFORNIA ZEPHYRS) will feature *Vista-Dome* cars.

So keep your eye on the Burlington in 1947 . . . and remember, there's no extra fare on *any* Burlington train!

NEW FOR BURLINGTON PASSENGERS IN 1947

FIVE NEW EMPIRE BUILDERS *(Now in service)*
Chicago-St. Paul-Minneapolis-Pacific Northwest
(Burlington-Great Northern)

COMING:

TWO NEW TWIN ZEPHYRS
Featuring *Vista-Dome* Cars • Chicago-St. Paul-Minneapolis
(Burlington)

FIVE NEW NORTH COAST LIMITEDS
Chicago-St. Paul-Minneapolis-Pacific Northwest
(Burlington-Northern Pacific)

SIX NEW CALIFORNIA ZEPHYRS
Featuring *Vista-Dome* Cars • Chicago-Denver-Salt Lake City
San Francisco • *(Burlington-Rio Grande-Western Pacific)*

. . . MAKING 31 ULTRA-MODERN DIESEL TRAINS FOR BURLINGTON PASSENGERS

- A **5 NEW EMPIRE BUILDERS**
  Now in service
- B **2 NEW TWIN ZEPHYRS**
  In service soon, replacing present Twin Zephyrs
- C **5 NEW NORTH COAST LIMITEDS**
  In service later this year
- D **6 NEW CALIFORNIA ZEPHYRS**
  In service later this year
- E **2 DENVER ZEPHYRS**
  Now in service, Chicago - Denver
- F **2 AK-SAR-BEN ZEPHYRS**
  Improved equipment in service this summer, Lincoln - Omaha - Chicago
- G **1 PIONEER ZEPHYR**
  Now in service, Lincoln - McCook
- H **1 SILVER STREAK ZEPHYR**
  Now in service, Kansas City - St. Joseph - Omaha - Lincoln
- I **1 GENERAL PERSHING ZEPHYR**
  Now in service, St. Louis - Kansas City
- J **1 MARK TWAIN ZEPHYR**
  Now in service, St. Louis - Hannibal - Burlington
- K **2 ZEPHYR-ROCKETS**
  Now in service, St. Louis - St. Paul - Minneapolis
- L **2 TEXAS ZEPHYRS**
  Now in service, Denver - Ft. Worth - Dallas
- M **1 SAM HOUSTON ZEPHYR**
  Now in service, Houston - Dallas - Ft. Worth

31 Streamlined trains serving Burlington passengers

Way of Zephyrs

Burlington Route

BURLINGTON LINES

CHICAGO, BURLINGTON & QUINCY RAILROAD • COLORADO and SOUTHERN RAILWAY • FORT WORTH and DENVER CITY RAILWAY
THE WICHITA VALLEY RAILWAY • BURLINGTON-ROCK ISLAND RAILROAD

Everywhere West

Department of Railways, N. S. W. Crown copyright.

Wayne Brumbaugh, 858 Huntington, Ave., Boston, Mass.

SECTION

Most powerful passenger locomotives, and the first Pacifics to run on the Government Railways of New South Wales in eastern Australia, are the 25 Pacifics of Class C-38, built in 1946. Some are streamlined← and are used on crack trains as the Newcastle Limited.

Westward→ from Whitefish, Mont., puffs Great Northern engine 2005, a Class N-2 2-8-8-0 built by Baldwin in 1912 and rebuilt in Great Northern shops in the middle '20's.

Highballing out the east end of Staple Bend cut (also see page 40), this eastbound Pennsylvania freight train↙ crosses under the Conemaugh & Black Lick Railroad, a Class 1 switching line serving the Johnstown area over three miles of its own track and 44 miles leased from the Bethlehem Steel Company, which controls the C&BL through majority stock ownership. This railroad owns 27 locomotives and 15 freight cars, and connects with PRR and B&O at Johnstown. A short distance east of Staple Bend, Photographer Brumbaugh snapped a westbound freight train↓.

W. J. Pontin, Rail Photo Service, 93 Massachusetts Ave., Boston 15, Mass.

Wayne Brumbaugh.

Wayne Brumbaugh.

Making use of a quarter-mile cut where the Conemaugh River makes a staple bend east of Conemaugh, Pa., the Pennsylvania Railroad's four-track Pittsburgh Division main line saves three miles of travel in the river valley. Strongly back lighted by an afternoon sun, this eastbound freight extra↑ enters the cut. The Great Northern's morning train from Havre to Butte, Mont., via Great Falls, emerges from tunnel 5→ at Sieben, 29 miles north of Helena. Smoke was staged.

William J. Pontin, Rail Photo Service, 93 Massachusetts Ave., Boston 15, Mass.

A. C. Kalmbach.

Still called Grand Avenue Junction although the Milwaukee street for which it was named is now known as Wisconsin Avenue (on the overhead), this tower↗ west of the 35th Street yard of the Milwaukee Road routes trains westward to the Pacific Coast and northward to Upper Michigan points. Rounding the curve in the Menominee river valley, which the westward line follows to suburban Wauwatosa, is the eastbound Olympian from the Northwest. Viaduct in background is for street cars.

One of the youngest railroads in the United States is the Mississippian Railway, whose 24 mile line connects Fulton, Miss., with the Frisco Lines at Amory. Incorporated July 30, 1923, the company completed construction late in 1924 along the fertile valley of the Tombigbee River, penetrating large tracts of yellow pine. No. 10↓, a 2-6-0 built by Baldwin in 1907 for the Alabama, Tennessee & Northern, is one half the Mississippian's power. Engineer and fireman are one ninth its employees.

L. B. Herrin, 7846 East End Ave., Chicago 49, Ill.

10

Harry J. Trede, 115 Fernwood Terr., Stewart Manor, L. I., N. Y.

Unique among steam railroads is the Long Island Railroad, which derives most of its revenue from passenger traffic rather than freight. Its passenger density, largely a commutation service, is the greatest ever recorded. The Long Island, controlled by the Pennsylvania, operates 376 miles of line, all but four miles of which is on the island which gives it its name. Here a Pennsylvania Atlantic pulls a one-car extra on the four-track main west of Bellrose.

Feedwater heaters effect great savings in fuel, utilizing exhaust steam to preheat the water before it enters the boiler. Most feedwater heaters are hidden from view, but Boston & Maine 4017 carries hers, a Coffin, proudly in full view. No. 4017 is a Lima built Class T-1a Berkshire.

A. S. Arnold, 6 Einhorn Rd., Worcester, Mass.

New York Central.

ENGINEER — Envy of all little boys and a good percentage of grown men, the engineer is Lord High Everything of the railroad, especially when his train is one like the New York Central's famed Twentieth Century Limited. Upon his judgment and skill rest the lives of the passengers. The late Bob Butterfield is shown in the cab of the Century before the Diesels came.

Ernest Black; courtesy *Reading-Central Jersey Magazine.*

SIGNAL MAINTAINER — To help the engineer speed his train over the rails in safety, railroads have installed block signals to warn him of obstructions on the track ahead. Among the men who lose their identity in the little-publicized jobs of a railroad are those who maintain the signals, climbing the high posts to check the mechanism and replace electric light bulbs well before expiration of the bulb's life expectancy.

Emmet Miller, 14838 Holmur, Detroit, Mich.

CROSSING WATCHMAN — To warn highway traffic of oncoming trains, railroads hire crossing watchmen who raise and lower gates, sometimes from a tower by means of levers, sometimes by a hand crank on the supporting column of one of the gates. Last hand-operated gates in Detroit are on the Grand Trunk Western crossing at Riopelle and Franklin streets. Tony Antonelli cranks them down, then watches the 1:40 train.

Emmet Miller.

Alex. L. H. Darragh, 5836 N. Wayne Ave., Chicago 40, Ill.

TURNTABLE OPERATOR — Large engine terminals have power-operated turntables and men to operate them. Like the signal maintainers, they lose their identity so far as the public is concerned and become just another cog in the huge gear of transportation. On branch lines, turntables are often hand-operated. This crew is at Augusta, Ga., on the Charleston & Western Carolina Railway.

Frisco Lines.

RAILROAD PEOPLE

STATION AGENT — The small community station agent not only sells tickets but serves as telegraph operator, baggageman, and express agent. One of his duties is to relay train orders to the crews of passing trains, as J. V. Manasco (see page 13, March Trains) is doing at Carbon Hill, Ala., on the St. Louis-San Francisco Railway. The "flimsy" is tied between the forks of the train-order stick and the head-end brakeman is prepared to take it "on the fly." The station agent in reality is The Railroad to citizens of the community in which he is stationed. His personal attitude is interpreted as the attitude of the railroad: If he is pleasant and co-operative, so is the railroad. If he is grouchy and unco-operative, so, too, is the railroad.

New Cutoff Serves Virgin Territory

Florida East Coast opens practically gradeless and curveless line to the Lake Okeechobee agricultural area, saving 122 miles

By-passing 152 miles of unproductive branch line territory which served only to slow operations from the fertile agricultural area south and east of Lake Okeechobee, a new cutoff was opened to traffic March 8 by the Florida East Coast Railway. From the main line at Fort Pierce, Fla., the cutoff runs 29.32 miles to its junction with the existing branch line, which will be abandoned north of the cutoff except for a portion between Holopaw and Maytown. This portion will be operated temporarily by a lumber company until its operations are completed.

Not only does the cutoff bring the Lake Okeechobee district 122 rail miles closer to the main line but it opens up thousands of acres of new land adapted to pasturage, citrus fruit growing, truck crops, and sugar cane which heretofore has been served by neither railroads nor highways. Some of the adjacent lands, especially toward the eastern end, are already being drained, cleared, and planted.

Grades on the new line are exceedingly light, reaching a maximum of only 0.25 per cent. From an elevation of 27 feet above sea level at the Fort Pierce yard, on the crest of a low coastal sand ridge, the line drops to its lowest point of 16 feet above the sea in a distance of about 2½ miles. A series of moderate ascending grades raises the line to 41 feet above sea level at the rim of the Lake Okeechobee basin, 24½ miles from Fort Pierce. From here the line drops gently to 27 feet at its junction with the existing branch along the lake shore.

The only curves on the cutoff are near its ends. For 25 continuous miles the line hasn't even the suggestion of a curve. Two passing tracks each have a capacity of 75 cars.

From an operating standpoint, the cutoff substitutes heavy-duty, high-speed trackage for the comparatively light construction of the former branch route, on which only the lighter types of motive power could be operated, and these only at restricted speeds. The new track is laid with 90-pound rail as compared with 70-pound on the old line. Ties are creosoted and fully tie-plated. Rock ballast is being applied on curves, bridge approaches, and crossings, and remainder of the line will be

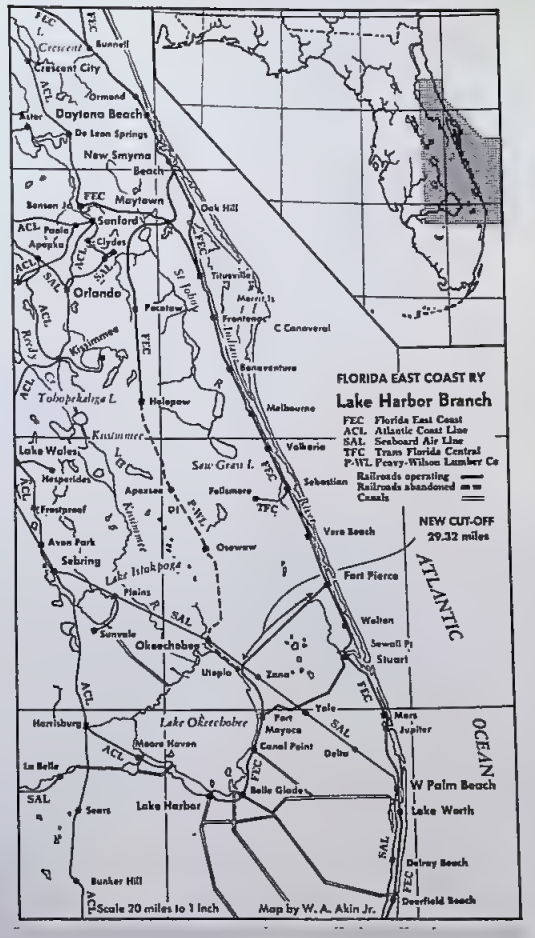
Florida East Coast photos by Harry M. Wolfe.

First train← over the new cutoff is greeted by crowds upon its arrival at Fort Pierce. For 25 consecutive miles the road is a straightforward line→ intent on making connection with the existing branch in the shortest possible time. Old line will be abandoned with the exception of a short section from Holopaw to Maytown.

ballasted as rapidly as conditions permit. Construction involved no serious difficulties, as the land traversed is practically level and free from rock. Some heavily wooded areas were encountered, but most of the route is through an open pineland and scrub palmetto. For a distance of about 2½ miles it crosses a savanna, or wet prairie, known as the Allapattah Flats.

A total of 1356 feet of trestlework was required to cross the drainage canals, creeks, and ponds encountered. Trestles are of creosoted piling with steel caps and steel stringers. Longest trestle is 309½ feet. Embankments involving 640,353 cubic yards of material carry the track over swamps and other depressions.

Advantages of the new line to growers and shippers in the Lake Okeechobee area are obvious. Empty cars, extra motive power, and train crews assembled at Fort Pierce can be made available on much shorter notice than formerly, when they had to be taken 122 miles farther from New Smyrna Beach. This is important, due to the highly fluctuating character of the traffic, which some weeks may average less than 200 cars and during other periods may reach a peak of more than 700 cars a week. Likewise, loaded cars can be moved out of the area more promptly.



St. Johnsbury & Lake Champlain

Rooted deep in the hearts of its users, this meandering 96-mile line serves dairylands and forests of "Unspoiled Vermont"

BY PHILIP R. HASTINGS

Take 90-odd miles of assorted iron ranging from 56- to 85-pound section, several venerable wooden covered bridges, some neatly painted white and green frame station buildings with accompanying wooden water tanks, and a few clean-cut little Consolidations from off the B&M; mix thoroughly 'round about and over an unruly serration of rugged Vermont hills; anchor one end firmly in the valley of Lake Champlain, tie the other to the banks of the Passumpsic River, and there you have the St. Johnsbury & Lake Champlain Railroad.

Especially in the fall, when hills glory in the red and gold of retiring foliage's one last fling, a ride on the StJ&LC is an experience of natural beauty unsurpassed. "Unspoiled Vermont" lacks, perhaps, the grandeur of a Mt. Rainier; but certainly it is endowed with purple mountain majesties, the loveliness of crystal lakes, and the soothing velvet of emerald meadows. Sunlight trickles through roofs of leaves arched overhead; rail clicks are sharp in the murmur of a fresh countryside; the cool breath of a rocky cut is bathed by icy springs.

Amid such beauties the St. Johnsbury & Lake Champlain Railroad operates 96 miles of single-track main line between St. Johnsbury and Swanton, Vt. Between these terminals lie 19 towns and villages whose stations are listed on the railroad's single-sheet public timecard. These country settlements, none of which exceeds 2000 in population and only four of which have more than 1000 inhabitants, are the St. Johnsbury & Lake Champlain Railroad, for nearly 90 per cent of the revenue traffic either originates or termi-

nates on the line. Particularly along the productive Lamoille Valley, which cradles the middle third of the railroad, the StJ&LC is a tradition close to the hearts of the people. Parents and grandparents of these folk paid for and worked toward the building of the line; when disaster struck in 1927 and floods nearly obliterated the roadbed, everyone pitched in to help restore service, and when the first train ran afterward brass bands and civic ceremonies greeted its arrival at towns along the way. The StJ's meandering "accommodation" passenger service engenders much good-natured joking, but the frequent, dependable freight service is prized as an asset to each community, and country post offices are filled at train time because the StJ always brings the mail.

The individuality and character of the railroad are revealed most succinctly in its roadbed and right of way. Running rail itself indicates something of the road's history through a heterogeneous diversity of sections. The modern StJ is represented by 11 miles of 85-pound iron, while a few lengths of 56-pound rail inbedded in a mainline highway crossing recall diamond stacks sputtering wood sparks. Two-and-a-half miles of 60-pound rail is still in use, and most of the trackage consists of but 70-pound rail. Scattered throughout the system are short sections of iron weighing 67, 72, 75, 76, 79, and 80 pounds to the yard.

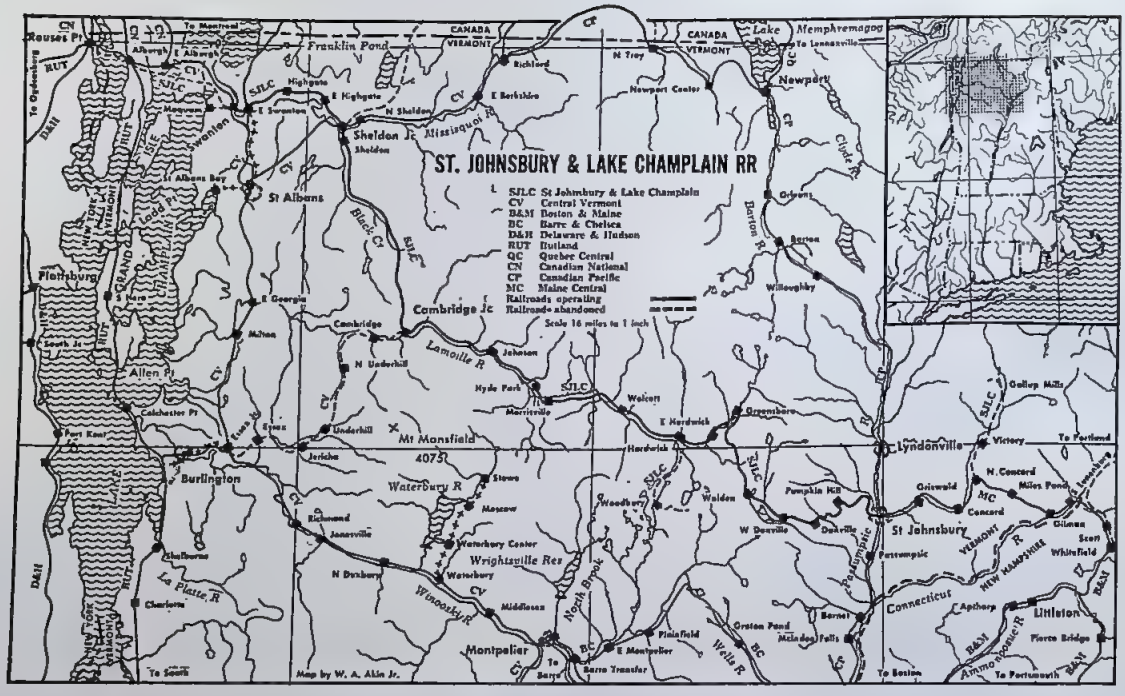
The St. Johnsbury & Lake Champlain has its share of topographical operating hardships. Leaving St. Johnsbury yard, trains plunge immediately into a 10-degree reverse curve which crosses the Sleeper River trestle on a grade of one per cent plus. From there it takes an hour of practically continuous climbing to surmount the 2000-foot ridge which forms the western rampart of the Passumpsic River Valley. Tonnage rating for the 11-mile slope to Danville is 500 tons for the 33,400-pound tractive effort of the StJ's 2-8-0's. This stretch of track includes the ruling grade westbound, 2.41 per cent at Pumpkin Hill, where tonnage trains barely manage to struggle through Badgers Gap with tortured exhausts beating off dripping rock walls to mingle with the squeal of flanges on the curve. Here weeds on jutting ledges scrape the tops of swaying box cars and the engineer cannot see a car length ahead around the rock-walled curve.

A succession of twists and turns takes the railroad uphill along natural slope lines, and crawling trains may forge ahead suddenly with clashing slack as engineers utilize the infrequent short dips to get a run for the inevitable steep pitch just around the curve.

From Danville, tonnage may be increased to 550 tons for the last

The passing track switch stand at Walden↑ overlooks a panorama of the Vermont hills and valleys which mark the route of the StJ&LC. This is the highest point on the line, 1669 feet above sea level. At the foot of these mountains lies fertile Lamoille Valley; beyond the farthest peaks lies Swanton, western end of the line. Base for StJ&LC operations is the St. Johnsbury enginehouse→, where a switcher berths a combine taken off a train drawn by engine 39.

All photos by Philip R. Hastings, 22 University Rd., Burlington, Vt.



The typical Canadian Pacific station at St. Johnsbury is used jointly by CPR, Maine Central, and the StJ. As the daily milk train← from Swanton pulls into the station an MC freight is about to depart for Portland, Me., while a StJ switcher works at far left. Crack Boston-Montreal Alouette stops at St. Johnsbury↙ with StJ's combine waiting mixed train in the background.

eight miles to the summit at Walden. Nearing the top of the eastern slope passengers have a magnificent view, back to the east, of the Connecticut Valley far below, with the White Mountains of New Hampshire looming in the background. Breasting the hump at Walden, a no less magnificent panorama lies before the travelers westward, the Green Mountains of Vermont spreading to the horizon. Eight hundred feet below, and only five miles away in a straight line, a green carpet marks the Lamoille River Valley, which affords 30 miles of water-level running westward. To reach this natural pathway the StJ must circle around downward slopes for a distance of 18 miles, even so encountering the ruling eastbound grade of 1.97 per cent before reaching river level. Near the bottom of the hill lies Greensboro Bend, which is the StJ's own horseshoe curve.

Entering the river valley northward along its west slope, the track descends to Greensboro, where it describes a complete semicircle to continue southward along the east slope of the valley. Maximum curvature, at Greensboro station, is 7 degrees 15 minutes, with the curve spiraling out at each end.

Leaving Cambridge Junction, under the shadow of 4000-foot Mt. Mansfield, another ridge is encountered before the slope down into the valley of Lake Champlain is reached. From Cambridge Junction into Swanton and return the maximum tonnage rating is 825 pounds, although slight increases are permissible over parts of this section.

The StJ&LC has been a local institution for more than 70 years. Post-Civil War days brought dreams of an empire to a group of farsighted business men in northern Vermont, who discovered their territory to be strategically located between vast traffic sources on the Great Lakes and a hungry Atlantic Ocean outlet at Portland, Me. Their dreams brought action in the form of the breaking of ground for the Vermont Division of the Portland & Ogdensburg Railroad at St. Johnsbury in 1869. Loyal local support shouldered the young road across the rough slopes of Vermont until, in 1877, rails crossed the entire state from Lunenberg on the east to Swanton on the west. Then growing pains forced the Vermont Division into receivership, from which it was revived as the St. Johnsbury & Lake Champlain Railroad Company.

Negotiation of a large loan from the Passumpsic Railroad (now Boston & Maine) to put the revived road on its feet initiated a Boston & Maine control which has existed through to the present day.

In 1883 an extension was completed to Rouses Point, N. Y., to provide the final link in a direct

Train 75, the weekday mixed, crosses the CPR Montreal-Wells River line as it pulls out of the St. Johnsbury yard↗, then screeches around a 10-degree reverse curve, sharpest on the railroad, as it heads upgrade across the Sleeper River trestle→. The CPR crossing is protected by a derail on the StJ&LC tracks. The derail cannot be cleared except by permission from the Canadian Pacific's operator.

Three miles west of St. Johnsbury, No. 75 battles the 1.46 per cent Clay Hill grade. Between St. Johnsbury and Danville trains are limited to 500 tons.

route between the Great Lakes and Portland, connecting with the Ogdensburg & Lake Champlain Railroad west to the lakes and with the Portland & Ogdensburg east to the ocean. But misfortune haunted the StJ&LC and disaster fell when the Vermont Central, a rival transstate route, snatched control of the vital Ogdensburg & Lake Champlain link. The vast east-west traffic envisioned by the founders of the road never became a reality. Today, routing via StJ&LC still provides the shortest rail route from Portland to Chicago and Montreal, but the StJ's rigorous curves and grades hinder heavy high-speed traffic, and through cars form a minor portion of its business.

In spite of this frustrated dream, the period from 1880 to 1885, while the StJ&LC was still operating independently, seems to have been the brightest in the road's history. During those years annual income nearly doubled, and a generous supply of new equipment did not prevent accumulation of a sizable surplus in the treasury. In 1885, however, the Boston & Lowell Railroad (now Boston & Maine) obtained a controlling interest in the StJ&LC. During subsequent years absentee control relegated the StJ to the position of an unimportant and even unwanted branch line. Finally, in 1924, the B&M saw fit to return the road to local management, but the huge deficit accumulated by 1925 proved to be too great a burden. Even with improved conditions following the return to local management, a bond issue which fell due in 1944 could not be met. The Boston & Maine again stepped in to pay off the bonds. The StJ could not repay the parent road, so a bankruptcy court was the only answer. This trusteeship was terminated December 2, 1946. Since the B&M was the only creditor recognized, that road received the complete issue of new securities.

Although present income and expenses just about break even, the future looks good for the StJ. It will be aided by the present B&M practice of advice on general policies and noninterference with operating procedures.

Operating over the erstwhile Portland and Ogdensburg system between Portland, Me., and Lunenburg, Vt., and over leased StJ&LC tracks from Lunenburg to St. Johnsbury, the Maine Central furnishes an important interline connection. Another connection is made at St. Johnsbury with the Canadian Pacific, whose single-track line reaches north to Newport, Vt., and Montreal, Que., and south to Wells River, Vt., for Boston & Maine connections to Boston and New York. Yard facilities at St. Johnsbury are shared by the three roads — MC, SPR, StJ&LC — and expenses are divided in proportion to traffic handled. Roughly, this amounts to 50 per cent for CPR and 25 per cent each for MC and StJ&LC. The Canadian Pacific owns the station facilities and runs the yard, while the St. Johnsbury & Lake Champlain furnishes switch engines and crews.

The StJ is the only road maintaining engine facilities at St. Johnsbury, as the CPR has shops nine miles north at Lyndonville and the MC operates trains from the Portland end, making same-day returns. St. Johnsbury is the StJ's main terminal, where all locomotives are kept and all train operations originate. General offices, however, are at Montpelier, Vt., 25 miles from the nearest StJ&LC track. All train dispatching is likewise done from this point by dispatchers who never hear the sound of a StJ whistle. The reason for this incongruous setup is that the Barre & Chelsea Railroad, including the former Montpelier & Wells River Railroad, until recently had the same officers and train dispatchers as the StJ&LC. The B&C was then controlled by the B&M, but since last December control has passed to local interests although the B&M still retains some stock and furnishes managerial and engineering counsel. Included in the B&C's present directorate are

some of its former directors who are likewise on the present board of the St. Johnsbury & Lake Champlain.

Swanton, 64 miles northwest of St. Johnsbury but 96 miles away over the railroad's curves, has practically no terminal facilities, and functions primarily as an interchange point with the Central Vermont for traffic to and from the west. Only two passenger trains a day make the full journey between St. Johnsbury and Swanton, one each way; one other train makes a round trip from St. Johnsbury to Cambridge Junction daily except Sunday. To service the locomotive which lays over at Swanton each night, the road maintains a small wooden enginehouse, a turntable, and a hand-to-mouth supply of coal.

The Central Vermont interchange is by means of a freight branch to Rouses Point, N. Y., where connections to south, west, and north are available with Delaware & Hudson, Rutland, and Canadian National. The StJ's own branch to Rouses Point was torn up years ago after the CV snatched control of the vital Ogdensburg & Lake Champlain, diverting lucrative western traffic to its own rails. The two roads are on much better terms now and share yard facilities at Swanton. The station belongs to CV, to whom StJ pays rent on a fixed percentage basis. Trains of each line do their own switching with their own road engines, as yard work does not require a full-time crew. StJ&LC once had an extension from Swanton to Maquam on Lake Champlain, where a hotel, a lake steamer, and port facilities were

Train 75 goes into the clear↑ for No. 74, the eastbound milk train. Car in front of locomotive already occupied the siding; it is loaded with locally cut ties. First car behind the tender is a Canadian National rack car for pulpwood. Drifting downgrade toward the Lamoille Valley, train 75 crosses a state highway↙ just west of Walden. To reach a spot five miles farther by highway will take the train 45 minutes.

operated. This picturesque enterprise was abandoned years ago.

Traffic on the St. Johnsbury & Lake Champlain is handled by the four passenger-train runs, an odd-day-out even-day-return way freight, and an extra freight to Swanton and return if the Central Vermont brings in enough cars to warrant it. Two of the weekday trains, Nos. 51 and 52, are listed on the timecard as "passenger trains, first class." Actually they carry only a combination baggage-mail-passenger car for the accommodation of ticket holders. Milk, mail, and l. c. l. freight are the real reasons for running these trains. No. 51 runs west early in the morning to Cambridge Junction and, turning there, returns to St. Johnsbury as No. 52. Two afternoon mixed trains, 74 and 75, are the only regular runs which cover the entire line. Westbound No. 75 puts up overnight at Swanton and returns the next day as No. 74. Running time for these trains is 5 hours 45 minutes westbound and 6 hours 30 minutes eastbound.

The way freight, which leaves St. Johnsbury early in the morning on Mondays, Wednesdays, and Fridays, runs extra and works the line west to Cambridge Junction.

There it puts up overnight and returns on Tuesdays, Thursdays, and Saturdays. This train is the real workhorse of the railroad, often requiring 12 to 15 hours to cover its 64-mile daily run.

Loaded traffic is primarily eastbound and amounts to more than 10,000 carloads annually. About 6000 of these are Vermont products originating on line, 3000 are incoming traffic, and the remaining 1000-odd are through cars. Milk is the biggest single on-line revenue producer. More than 2000 carloads of milk and milk products were shipped to the Boston market via the StJ in 1945, netting the road around $75,000. Most milk is transported in glass-lined bulk tanks; the balance goes in cans in refrigerator cars.

Limestone and talc are important sources of traffic. Quarries at Swanton ship about 1500 carloads of limestone annually. Some of this is carried in open gondolas as broken limestone; some is crushed and bagged for shipment in box cars. Talc shipments from the Johnson mines 56 miles west of St. Johnsbury amount to some 1000 carloads per year. This mineral powder is bagged for many industrial uses and during the war, when French talc was unobtainable, for women's face powder as well.

Asbestos, from the only asbestos mine operating in the United States at present, furnishes about 500 carloads per year. Forest products account for another 1000 carloads. Each December about 100 flat cars piled high with young evergreen trees leave the StJ&LC to grace homes as far south as Florida and New Orleans.

The principal inbound commodity is coal, of which about 550 carloads are hauled yearly. Through traffic is almost entirely grain eastbound and pulpwood westbound. Some 500 carloads of each are handled annually.

Passenger traffic has declined to the point where passenger facilities are maintained merely as an accommodation. At one time grossing more than $100,000 yearly, StJ&LC ticket sales now bring less than $5000. Passengers are not attracted by 44-year-old combines on trains which take 80 minutes to climb 20 miles of hills out of the Passumpsic River Valley.

Freight business, on the other hand, is a stable proposition. Old, established firms along the line do not show much fluctuation. Even the war affected business very little, although production did increase somewhat.

Ever since the B&M obtained control in 1885, the StJ&LC has had no new rolling stock or motive power. The present power roster consists entirely of locomotives which had already run out their best years on B&M iron before making their appearance on the StJ. Nine of the 11 engines are ex-B&M Class K-7 light Consolidations; the other two are Class G-10 six-wheel switchers. Seven of the road engines, as well as both switchers, are in use. On the rip track in St. Johnsbury are Nos. 37 and 38. The 37 ran out its time last July and is awaiting disposal. The 38 was smashed in a "cornfield meet" in 1944, when, on train 75, she ran past a meet at Greensboro and hit an eastbound extra freight.

"Newest" engine is the 41, which the B&M released in August, 1946, to run out her last legs through Vermont pastures. Previously B&M 2388, the 41 is already 40 years old and will become outlawed, for flues, in August, 1948.

Rolling stock is limited to work equipment, cabooses, and com-

Greensboro station↖ is at the apex of Greensboro Bend, a complete semicircle of track with maximum curvature of 7 degrees 15 minutes at the station. As train 74 is handling more than the rated 700 tons, she is double-headed. The head engine is Barre & Chelsea 19, which StJ&LC rents. Train order board, which is also used as a form of block signal, is at clear as the milk train chuffs out of the station. Eastbound morning passenger train No. 52← meets a westbound extra way freight on Greensboro Bend, just east of the station. No. 51 goes from St. Johnsbury to Cambridge Junction early in the morning, setting out empty milk cars at the creameries en route. Returning, work is light. The way freight runs west to Cambridge Junction on Mondays, Wednesdays, and Fridays, returning on the alternating days. Typical of the neat, prosperous farms along the fertile Lamoille Valley is the barn at right of tracks→ as an extra freight meets No. 74. The Lamoille Valley is a large contributor to the $75,000 annual milk traffic revenue of the St. Johnsbury & Lake Champlain Railroad. This scene is at Granite Junction.

bines. The three cabooses are ex-B&M, commodious, and many-windowed. Four combines make up the passenger equipment; two of these are ex-Rutland, with open vestibules on the passenger end and closed mail ends. The other two came from the B&M and are closed on both ends.

As is the case with other equipment, all StJ rail is secondhand from the B&M. Considering its meager resources, the road does a remarkable job of maintenance. Most curves are spiraled and elevated to a nicety which would be a credit to a much larger road. Last summer weeds were chemically eradicated over the one third of the roadbed which needed such treatment. Rugged little crane No. 2 has been busy replacing rails, ties, and ballast, and the miniature disker, mounted on a section motor car, keeps ballast lines trim.

Nearly all station buildings on the line recently received a fresh coat of chaste New England white,

Train 51↖ sets out milk cars at Cambridge Junction. At Sheldon Junction, where Central Vermont crosses, car on spur← rolls into train by gravity. Swanton↙ marks west end of StJ&LC.

trimmed with green. StJ is even sporting brand-new concrete mileposts since the engineering department had a chance to pick up a quantity of surplus highway markers from an online manufacturer.

Weather-beaten wooden covered bridges still remain unpainted to individualize the railroad. These five structures range in size from the three-span, 381-foot crossing of the Missisquoi River at Swanton to the 102-foot Lamoille River bridge west of Hardwick. The Swanton bridge was built in 1898; the newest was built in 1909. These bridges are completely of timber except for metal bolts supporting the floor beams. Other bridges of various types bring the total number of such structures to 48, one for each two miles of line.

The covered bridges are well equipped for the hard Vermont winters, since their roofs keep snow off the tracks beneath them. Unfortunately, this protection extends over a very minute portion of the railroad.

Eastbound train 74 pulls out of the Champlain valley through a rock cut ↖ on a 1.2 per cent grade just east of East Highgate. Typical of the line's wooden bridges is the one↗ near Hardwick. Except for bolts, these bridges are all wood. After setting off cars↓ at Cambridge Junction, where morning passenger train 51 terminates, the locomotive will be turned on an "armstrong" turntable, run around the combine and coupled on for the return trip as train 52. No. 52 sometimes waits as long as half an hour for the filling of the milk car which it picks up at Morrisville↓. Notice revolving order board.

CPR's new Class P-1n locomotive↑ is a rebuilt Class N-2↓. Trailing wheels were added, boiler extended, stoker installed.

New Ones Out of Old Ones

First of a new class of locomotives on the Canadian Pacific was turned out of the railroad's Angus Shops, Montreal, last October. It is the P-1n class, converted from the N-2 class. Originally it was of 2-8-0 wheel arrangement; it is now a 2-8-2.

Principal reason for the change was the desire to equip the N-2's with stokers. This could not be done with the existing wheel arrangement, so the main frame was extended and the trailing wheels added. The original substructure was practically identical to that of the 5100-series Class P-1, except for trailing wheels. Coincidentally the boiler was lengthened, steam pressure increased from 190 to 215 pounds per square inch, and cylinder diameter reduced from 23 to 22 inches. Tractive force was increased from 43,400 pounds to 45,000 pounds. A larger tender was also added.

Fifteen N-2's are being converted. Their new road numbers will be from 5200 to 5214 inclusive.

Principal Dimensions:

	Before	After
Road class	N-2a, N-2b, N-2c	P-1n
Road numbers	3600-3760	5200-5214
Boiler pressure, lbs.	190	215
Cylinders, diameter and stroke, in.	23 x 32	22 x 32
Driver diameter, in.	63	63
Tractive effort, lbs.	43,400	45,000
Grate area, sq. ft.	49.5	50.1
Evap. heating surface, sq. ft.	2316-2424	3116
Superheater surface, sq. ft.	602	852
Weight on drivers, lbs.	211,000-216,000	197,500
Loaded weight of engine, lbs.	236,000-240,000	271,000
Loaded weight of tender, lbs.	139,000	238,000
Tender capacity: Imp. gals. water	5000	10,000
Tons of coal	12	18

New Construction in 1902

In order to serve the famous Homestake Mine at Lead, S. D., the Fremont, Elkhorn & Missouri Valley Railroad constructed a three-mile mixed-gauge track branching from the original narrow-gauge Deadwood-Crown Hill line at Blacktail Gulch, necessitating the laying of a third rail from Deadwood to the junction and the relocating of the old line to make the sweeping curve which carried the new branch south and eastward to Lead. This photo, from the collection of Carl Welch, 168 South Downing Street, Denver, Colo., was taken shortly after the hourly interurban trains began running between Deadwood and Lead in the fall of 1902. Engine 225 is a standard-gauge 4-6-0 headed west on the three-rail track which continued on to Central City; on the trestle which blocks the old line sits a narrow-gauge 4-8-0 which has just come from Lead. Running along Deadwood Creek into the gorge at distant left is the line east to Deadwood. Originally the Deadwood-Central City-Crown Hill line was narrow gauge all the way, and beyond Central City it remained narrow gauge until abandonment in the '20's. The 1373-mile FE&MV for many years had been operated as part of the Chicago & North Western System; in February, 1903, it lost its identity through absorption into the Chicago & North Western Railroad. Today this division runs only as far as Deadwood and connection to Lead is by bus.

Railroad Slogan Quiz

Kent Day Coes is the author of this brain teaser. It includes many of the slogans the railroads are famous for using. Jot down what railroad you think is represented by each of the slogans and check your accuracy on page 69. This is one of the toughest quizzes we have ever published and a score of 20 guessed right should put you right up there with the experts.

1. Be Specific — Say _____
2. The Better Way
3. Capital Cities Route
4. Everywhere West
5. Fast Freight Line
6. Follow the Flag
7. George Washington's Railroad
8. The _____ Serves the Southwest Well
9. Linking 13 Great States With the Nation
10. Main Street of the Northwest
11. A Mill to the Mile
12. Minute Man Service
13. Old Reliable
14. The Only Way
15. Over a Century of Anthracite Transportation
16. The Peoria Gateway Route
17. The Rebel Route
18. The Road of Anthracite
19. The Road of Personal Service
20. The Route of Precision Transportation
21. The Route of Phoebe Snow
22. _____ All the Way
23. Scenic Line of the World
24. See America First
25. Serves All Canada
26. Serves All the West
27. The _____ Serves the South
28. Speedway to America's Playground
29. Standard Railroad of the World
30. Through the Heart of the South
31. Through the Rockies — Not Around Them
32. To and From Dixieland
33. The Water Level Route — You Can Sleep
34. World's Greatest Travel System
35. World's Largest Anthracite Carrier

NEW "EASY CHAIR" COACHES

on the Soo Line

Luxury Travel at *Regular* Coach Rates

Modernization of equipment is going ahead under full steam at the Soo Line.

New seats of the most modern type now are being installed in many of our coaches. Richly upholstered in pleasing colors, these seats are designed to give greater comfort particularly for long-distance coach travel.

The coaches also include: new wall and ceiling decorations, new flooring, hat-racks, roomy luggage compartments, and new plumbing and porcelain fixtures in toilet compartments.

These distinctive improvements have already been installed in the Soo Line Winnipeger—crack train between St. Paul-Minneapolis and Winnipeg. They will soon be seen in other Soo Line services.

SOO LINE

Your *Working Partner* 7 Days a Week

Eastbound, Westbound

Most railroads operate their trains as "eastbound" and "westbound" regardless of what direction their tracks are pointing, although some railroads officially run north and south and a few operate in all four directions. The Reading once used four directions, north-south on some lines and east-west on others, but finally changed to east and west only. Eastbound trains on most railroads are even-numbered, while westbound trains carry odd numbers. But on the Boston & Maine, which looks upon all trains as "inward" or "outward" to or from Boston, an inward train from Portland to Boston is westbound and even-numbered, and an inward train from Troy to Boston is eastbound and even-numbered. San Francisco is officially the western end of the Southern Pacific, and trains running from Los Angeles to San Francisco are westbound. So are trains running from Portland to San Francisco. Thus cars from Los Angeles to Portland make the first part of the trip westbound and the last part eastbound. Cars running in the reverse direction do likewise.

Great Broad Gauge Route

At one time — from 1867 to 1871 — it was possible to travel all the way from New York to St. Louis over railroads with a gauge of six feet. The "Great Broad Gauge Route" consisted of the New York & Erie (now Erie) from New York to Salamanca, N. Y.; Atlantic & Great Western (now Erie) from Salamanca to Dayton, O.; Cincinnati, Hamilton & Dayton (now Baltimore & Ohio) from Dayton to Cincinnati; Ohio & Mississippi (now B&O) from Cincinnati to St. Louis. In the early 1870's the Erie laid a third rail from Waverly to Buffalo, N. Y., so that standard gauge Lehigh Valley trains could run over its track. On June 22, 1880, the entire system was changed over to the standard 4'-8½" gauge.

Advancing to the Rear

If you were the engineer of a train running over a road other than your own, and if your pilot told you, "There's a little rough spot in advance of that next signal," where would you expect to find it? Or if he said it was "in the rear of that next signal," where would he mean? Beyond the signal or on the near side of it?

Both phrases could be misinterpreted, and the "Book of Rules" recognizes this fact by putting the following among the definitions:

In Rear of a Signal - Before passing the signal.

In Advance of a Signal - After passing the signal.

Even after we know this it is hard to remember. My own system for remembering these definitions is through the rear home signals, which are, as their name implies, in the rear of the home signals. Normally a train passes the rear home signals before it passes the home signals. This establishes the meaning of "in rear of a signal," and, of course, "in advance of a signal" has the opposite meaning.— G. W. *O'Connor.*

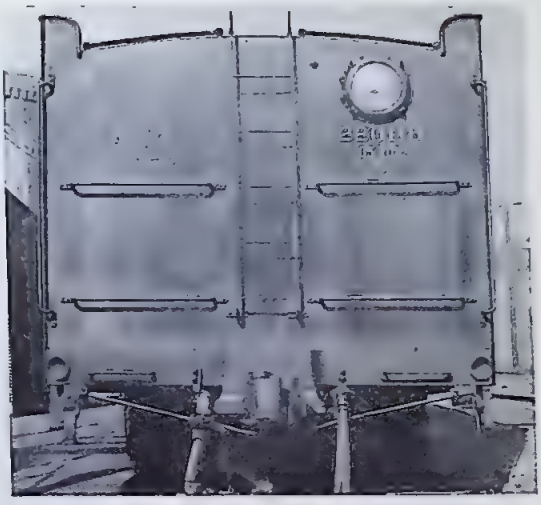
Built by the Japanese during the war as an alternate route between Seoul and Fusan in Korea, this new line of the Korean Government Railways includes a spiral tunnel which the train→ is about to enter on the upper level. Lower-level tracks skirt rice fields↓ in valley.

48-Year-Old Ticket Still Good

Late in 1946 an elderly lady boarded a New Haven Railroad train at New Rochelle, N. Y., and said to the conductor as she gave him her ticket, "I didn't buy this ticket today." The cardboard was dated "September, 1898," but the conductor honored it anyway because at the time of its purchase there were no time limits for usage. New Rochelle is 16½ miles from Grand Central Terminal.

Train Over Three Years Late

Texans along the Gulf & Interstate Railway (now leased to the Gulf, Colorado & Santa Fe, which is operated by the AT&SF) boast of a unique fact about the 44 miles of track between Bolivar and Beaumont. In 1903 their once-a-day accommodation round-trip train reached Beaumont, its northern terminal, just three years and 23 days late. During the hurricane of September 9, 1900, which prostrated Galveston and its environs, the train barely managed to reach Bolivar, located at the end of a long sandspit separating the Gulf of Mexico from Galveston Bay. About 30 miles of track was destroyed, but Bolivar and the train escaped with minor damage. The wrecked and insolvent railway was not sufficiently rebuilt that the train could return to Beaumont until October 1, 1903, with an entirely different train crew and passengers. — *Ralph Z. Kirkpatrick.*



Recessed Back-Up Light

Damage to back-up lights on Norfolk & Western's Class A, E-2, J, K-1, K-2, Y-4, Y-5, and Y-6 locomotives has been practically eliminated since the installation of recessed lights. When the lights were located on top of the tank they were frequently damaged by contact with water cranes.

Robert B. Shaw, 31 Morris House, Soldiers Field, Boston 63, Mass.

RUNNING EXTRA

How would you spell "one billion six hundred million dollars"? Why, "$1.6 billion," of course!

So says Catherine Brophy, style specialist and proofreader for TRAINS and THE MODEL RAILROADER. "Style," the kind Kay specializes in, has nothing to do with fashions, but rather, as Webster's Dictionary puts it, with "the manner or plan followed in dealing with certain details of typography, forms of expression, etc., as spelling, capitalization, word division, and punctuation."

Perhaps you weren't aware that TRAINS has a style. That's the purpose of having one. Without style, the magazine would be so full of inconsistencies in spelling, capitalization, and punctuation that you *would* be aware that something was amiss. Every author has his own way of expressing himself. Some use dashes in place of commas, commas in place of semicolons, a series of periods in place of a new paragraph. Some use too few marks of punctuation. Others use too many. Kay works over their manuscripts and puts in the correct punctuation and the correct capitalization, at the same time correcting misspelled words and smoothing out any rough spots in phraseology.

Miss Brophy's job calls for a good knowledge of English and of railroad and model railroad terminology, as well as for a scrupulous attention to detail. Always at hand are the style sheets of the two magazines — alike in many respects, different in others, due to differences in the magazines themselves. For instance, THE MODEL RAILROADER deals with many dimensions: "Take a ¼" x 1½" x 2" block of soft wood. . . ." TRAINS, on the other hand, uses figures and abbreviations sparingly because the significance of its content lies not in dimensions but in the general information conveyed. In this case, numerous figures and abbreviations tend to interrupt the free reading of the article.

Kay reads every word of both magazines three times every month — once in manuscript, to prepare it for the printers; once in galley proof, to correct any errors the printers may have made; and once in page proof, as a final check before the magazine goes to press.

Railroad

Buffalo & Susquehanna, Wellsville Branch

I enjoyed the article on the Buffalo & Susquehanna in February TRAINS. In 1937, when my World War I signal battalion held its reunion at the Brookland Club in the Pennsylvania woods 11 miles from Galeton, I drove my car to Wellsville to take the mixed train from there to Galeton. The ticket agent at Wellsville had to call Galeton to find out what the fare would be, as he hadn't sold such a ticket for a long time. . . . Part of the time I had the ancient combination car to myself, especially while the crew was doubling the hill to Newfield Junction. For almost half the distance the branch follows the Genesee River to its very headwaters — sidehill springs. This was real mountain railroading, with wonderful scenery and sharp curves — especially the hairpin curve, where the two engines across the valley were going in opposite direction to the tail end of the train. That night I stayed in the comfortable old hotel at Galeton and next morning caught the mixed train north to the club. With all those freight cars ahead, the engineer made a stop right on the crosswalk to the club, where the old station used to be. The club steward was amazed to see a passenger get off there.

The Rev. John S. Williamson, Sodus, N. Y.

Steam Replaces Diesel

With the current operation of L&N's new coach streamliners, at least two of the 4000-horsepower Diesel passenger engines had to be broken up into 2000-horsepower units for the *Georgians* and the *Humming Birds*. From what I hear Louisville way, this has caused a shortage of Diesel power and steam is again being used more or less regularly north of Louisville on trains 98 and 99, 1 and 4, in addition to the night trains, 2 and 3. One correspondent writes of seeing No. 1, the *Azalean*, arriving with 18 cars and Pacifics 230 and 241, a K-4 and a K-5 respectively. The train was on time, despite inclement weather. We steam fans think this is pretty good performance for two veteran Pacifics.

David P. Morgan, Box 126, Taft, Tex.

No Sissies on the B&M!

I must take exception to the article by G. W. O'Connor in January TRAINS: "Where Do We Stop?" I have railroaded seven years and my father-in-law 40 years, but we have never seen a 75- to 100-car train use Mr. O'Connor's solution. On our road, the Boston & Maine, a hogger slows and then hauls his full string up to the plug, takes water and pulls away. Any hoghead on this road would feel he was a damn sissy if he couldn't do it. "Cut off, take water, back on, then highball" — phooey!

J. E. Atwood, B&M RR., Lawrence, Mass.

Two Trains, One Schedule

I notice in New York Central's latest folder that the schedules of the *Pacemaker* (all coach) and the *Advance Commodore Vanderbilt* (all Pullman) are identical eastbound and westbound between New York and Chicago. Surely these two very popular trains can't be made into one train, nor can they both arrive and depart at exactly the same time.

E. Seebye, 12 Myrtle St., White Plains, N. Y.

[During winter months it is sometimes possible to combine these trains due to a seasonal decrease in coach traffic. Since the *Pacemaker* is a reserved-seat train, it is known in advance how many passengers will be aboard. When traffic is light, the *Pacemaker* is combined with the *Advance Commodore* so that the train runs with sleepers at the head end, two diners, *Pacemaker* coaches and *Pacemaker* observation car. When traffic is normal, the *Advance Commodore* precedes the *Pacemaker* by about five minutes, the latter running as a second section. — *Ed.*]

Mail

All at Once It Is Quiet

Have you ever sat on a lonely passing track in desolate central Nevada in the dead of night and listened for the approaching streamliner *City of San Francisco*? First indication of the approach is the authoritative blatting of a powerful air whistle, far out on the desert. You lie back in your darkened car and fairly tingle with anticipation as you watch the light rays increase in intensity on the rails just to the side of you and hear the drumming throb increasing with each passing moment. Then, a blinding flash of light, the mighty roar of big Diesel motors burbling at top speed, car markers and lounge lights flicking by incredibly fast, tail sign and red markers slipping past your shoulder in a twinkling, and then, all at once, it is quiet while the winter moon brings out rare beauty in the monotony of the desert and the distant snow-covered peaks gleam in the eerie light. Man, oh man!

Jim Bennett, 19 Highland Rd., Stamford, Conn.

Two Women in a Box Car

When my 77-year-old mother and I were caught in the housing jam and couldn't find a place to stay in Escondido, Calif., where we lived, we were offered two small cabins at Auburn, about 575 miles away, if we could get there. Moving by truck, I would have had to drive my car and sell my horse and cow or get an extra truck for them, which would have run into more money than I could afford. So I chartered a freight car and put into it my car, my household goods, my horse and cow, and my mother and me. We pulled out of Escondido on a fruit special, and we really rambled. We put up our cots and were as comfortable as our fellow travelers who traveled via Pullman.

Mrs. C. E. Sackriter, P. O. Box 158, Sta. A, Auburn, Calif.

Wants More Diesel Pictures

One steam fan writes that if you neglect the steam engine in your magazine it will lose a lot of interest. In my opinion, about all I see in the magazine is steam engines. Let's have a few more Diesels for a change.

Melvin Fell, 1185 W. 2nd St., San Bernardino, Calif.

. . . I think those Diesel drawings in the November and December issues are wonderful, and know if you continue this it will make TRAINS more interesting and also more educational.

Winston Leeberg, 1433 Edgewater Ave., Chicago, Ill.

Blaring, Nerve-Shattering, Ear-Splitting

The blaring, nerve-shattering, ear-splitting noise that emerges from the present Diesel air horn, together with the stuttering roar from the exhaust, certainly does not add to the otherwise attractive features of our most modern motive power. Give me the comforting musical note of the average steam engine whistle. We have enough other discordant sounds today.

Richard H. Steinmetz, 829 Ohio Ave., Lemoyne, Pa.

The Branch Line Passenger Train

In your February editorial, "The Branch Line Passenger Train," you mention that some railroads can take a weed-grown, almost deserted line and create a passenger run that pays. Can you specify any road that has done that?

H. E. Jenkins, Ward, Pa.

[The Milwaukee Road recently inauguratad a Sunday evening round-trip train from Milwaukee to Berlin, Wis., and by intelligent and diligent advertising built up its patronage to several hundred passengers within two months. Daily-except-Sunday trains had been run previously, handling mail as well as passengers. Without mail on Sunday, it was deemed unprofitable to operate a Sunday train — until it was tried. — *Ed.*]

SECOND SECTION

That innocent-looking caption (page 62) which describes the photograph on page 61 is an example of the voluminous research which goes into the preparation of TRAINS. Admittedly an exceptional case, this rare picture bore only the brief legend "Fremont, Elkhorn & Missouri Valley, probably in southern South Dakota." Reference to various maps and other sources of material — 35 in all — enabled the editors to pinpoint the location and date the photograph to within a few months of the day it was taken. Heaped at one time on the caption writer's desk were five *Official Guides* of the period, five volumes of "Poor's Manual of Railroads," one history of the Chicago & North Western, one ancient bound volume of *Railway Age*, two volumes of "Encyclopaedia Britannica," one "Americana" and two maps. Preliminary research involved the handling of 18 other references.

* * *

That's why we like to have contributors include all possible data on the back of each photograph. Tell where it was taken, when it was taken, what the subject is, and any other details available, even though they might seem irrelevant. And be sure to put your name and address on every photograph, so there will be no slip-up when it comes time to mail the checks.

* * *

Another thing we like to have people do, and we'll tell you why: When writing to us, please use separate sheets of paper for your message to each department, including your name and address on each of the sheets. For instance, if you want to renew your subscription to TRAINS and at the same time want to call the editors to task, use two sheets. That way, both departments get your message in the shortest time. When you include both messages over one signature on a single sheet of paper, the letter goes first to the subscription department, where it might easily stay for several days while your expiration date is checked and new records made, and then — and not until then — to the editorial department. You can imagine the delay accorded a letter which must circulate to several departments. Incidentally, TRAINS and THE MODEL RAILROADER have two distinctly separate staffs of editors, separated by three floors. A single letter intended for both magazines obviously will be delayed in one office or the other.

* * *

You do these little favors for us, and we'll reciprocate by writing more informative captions in the one case and by answering your letters sooner in the other. Fair enough?

KALMBACH PUBLISHING CO.
1027 N. 7th St., Milwaukee 3, Wis.

You can't keep a Good Geyser down!

Yellowstone National Park again presents its star attraction, Old Faithful Geyser. Every 60 to 80 minutes, its steaming column soars skyward.

With its many geysers . . . its multitude of other fascinating spectacles . . . Yellowstone is one of America's greatest vacation regions. And you can add to the enjoyment of your trip by including nearby Grand Teton National Park, famous for rugged mountainous beauty.

Union Pacific takes you direct to the West Yellowstone entrance . . . nearest to Old Faithful. And on your way there, you can stop over at Denver and Salt Lake City. Yellowstone-Grand Teton also can be visited as a side-trip enroute to or from the Pacific Northwest.

Union Pacific Railroad,
Room No. 66,
Omaha 2, Nebraska.

I am interested in a train trip to Yellowstone-Grand Teton Nat'l. Parks. Please send further details.

Name_____

Street_____

City_____ State_____

THE SEASONED TRAVELER GOES BY TRAIN

UNION PACIFIC RAILROAD

ROAD OF THE *Streamliners* AND *Challengers*

Answers to Quiz on Page 63

1. Union Pacific. 2. Louisiana & Arkansas. 3. Richmond, Fredericksburg & Potomac. 4. Burlington Route. 5. Western Maryland. 6. Wabash. 7. Chesapeake & Ohio. 8. Katy. 9. Baltimore & Ohio. 10. Northern Pacific. 11. Piedmont & Northern. 12. Boston & Maine. 13. Louisville & Nashville (also Georgia Railroad). 14. Alton. 15. Delaware & Hudson. 16. Minneapolis & St. Louis. 17. Gulf, Mobile & Ohio. 18. Lackawanna. 19. Tennessee Central. 20. Norfolk & Western. 21. Lackawanna. 22. Santa Fe. 23. Rio Grande. 24. Great Northern. 25. Canadian National. 26. Union Pacific. 27. Southern. 28. Florida East Coast. 29. Pennsylvania. 30. Seaboard Air Line. 31. Rio Grande. 32. Nashville, Chattanooga & St. Louis. 33. New York Central. 34. Canadian Pacific. 35. Reading.

Recorded Railroad Sounds

All the glamor of the roaring railroad . . . screaming whistles, thundering exhausts, clanging bells and clicking wheels . . . is faithfully recorded on phonograph records. Each record includes the authentic sounds of engines of the road designated. $1.95 each, postpaid. Ten inch size.

PRR recording No. 102
NYC recording No. 107
B&O recording No. 111
Erie RR. recording No. 114
Jersey Central recording No. 118
Lehigh Valley recording No. 119
Lackawanna recording No. 120
Atlantic Coast Line recording No. 121
Seaboard recording No. 124

Write for complete list of other recordings and railroad movies.

FRED McLEOD
1068 Fifth St. Oakmont, Pa.

D.&R.G.W.

Dynamic and Revolutionary • Grand • Wonderful — are just a few of the superlatives modelers use in telling us how much they like Mantua's HO model railroad equipment.

Maybe that's the reason we work so hard to earn and keep the regard of our customers — old and new.

Model railroading is a fascinating and relaxing hobby. Send for our new 1947 Catalogue and Handbook — 50c. It will open up a whole new world of fun for you and the whole family.

Pioneer and leader in HO gauge

MANTUA METAL PRODUCTS CO.
Department T
WOODBURY HEIGHTS • NEW JERSEY

PRIOR PLANNING *pays dividends*

•DURING the past five years the Nickel Plate has built up its fleet of Lima-built 2-8-4's until it now numbers 55.

This long-term view of traffic problems has enabled this railroad to maintain the necessary fast schedules required by today's freight . . . demands that not only call upon speed but also put a premium on ability to handle maximum pay loads at a maximum of efficiency and economy.

LIMA LOCOMOTIVE WORKS LIMA LOCOMOTIVE WORKS INCORPORATED **INCORPORATED, LIMA, OHIO**

Our "village blacksmith" is the trained railroad shopman . . . and the old-timer standing under the spreading chestnut tree may well envy him.

Today's Iron Horse gets the meticulous care the village smithy used to give a champion pacer. A hundred hands keep constant vigil on every detail of this "workhorse" of the rails . . . right down to the regular replacement of brake shoes.

The highest safe speed a machine can move is determined largely by the speed at which it can be kept under perfect control. This takes brakes — husky, uniformly-made, uniformly-inspected brake shoes.

This is but one of the thousand-and-one jobs that build our motto every day. "Precision Transportation" is our goal — and your guarantee. The result is swift, safe and sure rail service between the Midwest and the great year-round, ice-free Port of Norfolk, and between the North and South.

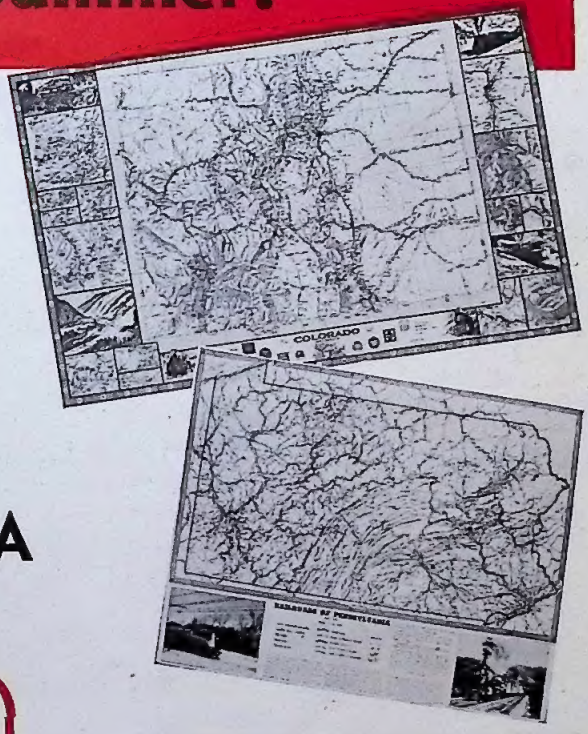
While our "village blacksmith" keeps powerful locomotives in peak condition at the shops . . . other N. & W. experts are ready for your call, too. In principal cities throughout the nation, N. & W. traffic experts know rates, routes and fast schedules . . . they stand ready . . . *to Serve You.*

Norfolk and Western Railway

PRECISION TRANSPORTATION

Planning a Rail Trip This Summer?

Here Are Two Maps of the Most Fascinating Sections of the Country From a Railroad Standpoint



COLORADO

IN 4 COLORS

PENNSYLVANIA

IN 3 COLORS

No matter where you travel, east or west, you will want to include Colorado or Pennsylvania in your trip. Our maps are the most complete railroad maps of these two states ever published . . . showing all the railroads, abandonments, topography, electric and interurban lines, and noting points of special historical interest. Your trip will be more enjoyable when you can identify all the crossings, towns, junctions, etc., from an authentic, colorful map. Send for yours today!

The Colorado map also includes 15 auxiliary maps, at various scales to show all parts of the state with suitable detail. Main map is scaled 1" to 16 miles; alphabetically indexed by railroads and also by cities, rivers, lakes, mountains, etc.; measures 38" x 24". Postpaid ---- **$2**

The Pennsylvania map shows all the railroads in the state and locates many of the railroad projects which never materialized and were abandoned before completion. It is scaled 1" to 15 miles; completely indexed; measures 17" x 22". Postpaid ---------- **$1**

FULL COLOR REPRODUCTIONS OF WATER COLORS AND KODACHROMES

Especially designed for framing purposes, these reproductions are so beautifully printed that they can hardly be distinguished from the original painting and Kadochromes. Printed in four colors with wide white margins, each ---- **$1**

Way Station **Westbound Freight**
Noonday Water Stop
Milwaukee Engine Terminal
Challenger in Palisades Canyon
Union Pacific Big Boy in Weber Canyon

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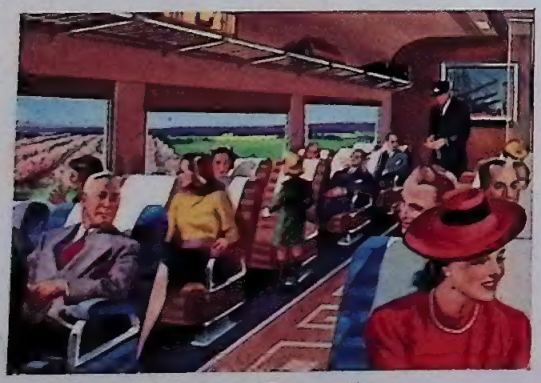
NEW *Streamliners and Dreamliners...*

Headliners in New York Central's 1947 Luxury Parade!

This is your Travel Year

Miles of new, streamlined coaches are here. And close on their wheels will follow more miles of all-private-room sleeping cars for a new fleet of overnight *Dreamliners*. All part of the $100,000,000 program now spotlighting the *new* in New York Central!



New Days of Delight

Sink back into the depths of a reclining seat aboard one of New York Central's post-war coaches. Enjoy the year round comfort of clean, conditioned air. Watch America roll past your wide-view window at scenic level. Dine in thrifty new coffee-shop cars. Lounge in luxurious new coach observation cars. In short, *fare like a king at low coach fares!*

New Dream Trips by Night

Relax in the privacy of your own completely equipped room. Or enjoy the sociability of Central's smart new club cars. Feast in new dining cars . . . some so spacious they need separate kitchen cars. Later, sleep in a feather-soft bed as your *Dreamliner* speeds in any weather over the smooth *Water Level Route* . . . And arrive refreshed for the day ahead.

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NEW YORK CENTRAL

The Water Level Route—You Can Sleep

NEW YORK CENTRAL SYSTEM